

JVC

SERVICE MANUAL

VIDEO CASSETTE RECORDER

SR-S365U



S **VHS**

Hi-Fi

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Important Safety Precautions

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

● Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the  symbol and shaded (■) parts are critical for safety.

Replace only with specified part numbers.

Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Fuse replacement caution notice.

Caution for continued protection against fire hazard.
Replace only with same type and rated fuse(s) as specified.

4. Use specified internal wiring. Note especially:

- 1) Wires covered with PVC tubing
- 2) Double insulated wires
- 3) High voltage leads

5. Use specified insulating materials for hazardous live parts. Note especially:

- | | | |
|--------------------|--------------------------------------|------------|
| 1) Insulation Tape | 3) Spacers | 5) Barrier |
| 2) PVC tubing | 4) Insulation sheets for transistors | |

6. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

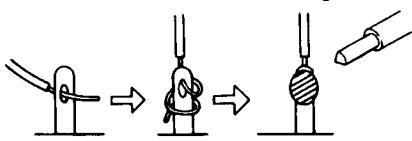


Fig. 1

7. Observe that wires do not contact heat producing parts (heat-sinks, oxide metal film resistors, fusible resistors, etc.)

8. Check that replaced wires do not contact sharp edged or pointed parts.

9. When a power cord has been replaced, check that 10–15 kg of force in any direction will not loosen it.

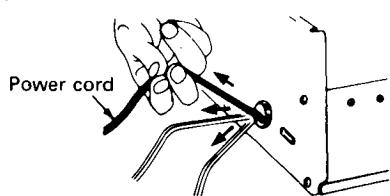


Fig. 2

10. Also check areas surrounding repaired locations.

11. Products using cathode ray tubes (CRTs)

In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits. Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

12. Crimp type wire connector

In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.

1) Connector part number : EO3830-001

2) Required tool : Connector crimping tool of the proper type which will not damage insulated parts.

3) Replacement procedure

(1) Remove the old connector by cutting the wires at a point close to the connector.

Important : Do not reuse a connector (discard it).



Fig. 3

(2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

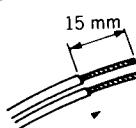


Fig. 4

(3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

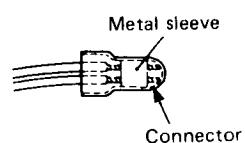


Fig. 5

(4) As shown in Fig. 6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

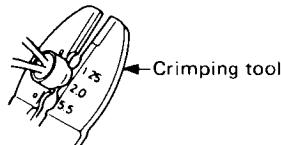


Fig. 6

(5) Check the four points noted in Fig. 7.

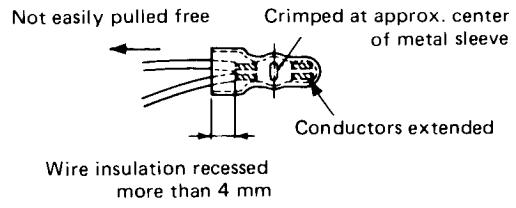


Fig. 7

● Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions. Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. Insulation resistance test

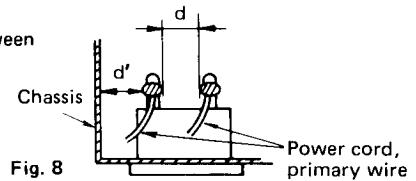
Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

2. Dielectric strength test

Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

3. Clearance distance

When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table 1 below.

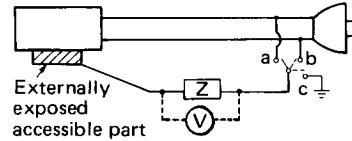


4. Leakage current test

Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).

Measuring Method: (Power ON)

Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z . See figure 9 and following table 2.

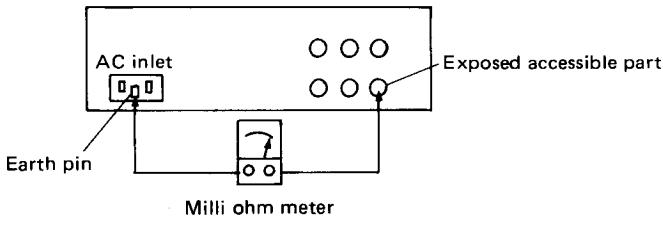


5. Grounding (Class I model only)

Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).

Measuring Method:

Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See figure 10 and grounding specifications.



Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	$Z \leq 0.1 \text{ ohm}$
Europe & Australia	$Z \leq 0.5 \text{ ohm}$

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	$R \geq 1 \text{ M}\Omega / 500 \text{ V DC}$	AC 1 kV 1 minute	$d, d' \geq 3 \text{ mm}$
100 to 240 V			AC 1.5 kV 1 minute	$d, d' \geq 4 \text{ mm}$
110 to 130 V	USA & Canada	—	AC 900 V 1 minute	$d, d' \geq 3.2 \text{ mm}$
110 to 130 V 200 to 240 V	Europe & Australia	$R \geq 10 \text{ M}\Omega / 500 \text{ V DC}$	AC 3 kV 1 minute (Class II) AC 1.5 kV 1 minute (Class I)	$d \geq 4 \text{ mm}$ $d' \geq 8 \text{ mm} \text{ (Power cord)}$ $d' \geq 6 \text{ mm} \text{ (Primary wire)}$
200 to 240 V			—	—

Table 1 Specifications for each region

AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan	$0 - \text{---} - 1 \text{ k}\Omega$	$i \leq 1 \text{ mA rms}$	Exposed accessible parts
110 to 130 V	USA & Canada	$0.15 \mu\text{F} - \text{---} - 1.5 \text{ k}\Omega$	$i \leq 0.5 \text{ mA rms}$	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia	$0 - \text{---} - 2 \text{ k}\Omega$	$i \leq 0.7 \text{ mA peak}$ $i \leq 2 \text{ mA dc}$	Antenna earth terminals
		$0 - \text{---} - 50 \text{ k}\Omega$	$i \leq 0.7 \text{ mA peak}$ $i \leq 2 \text{ mA dc}$	Other terminals

Table 2 Leakage current specifications for each region

Note: These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

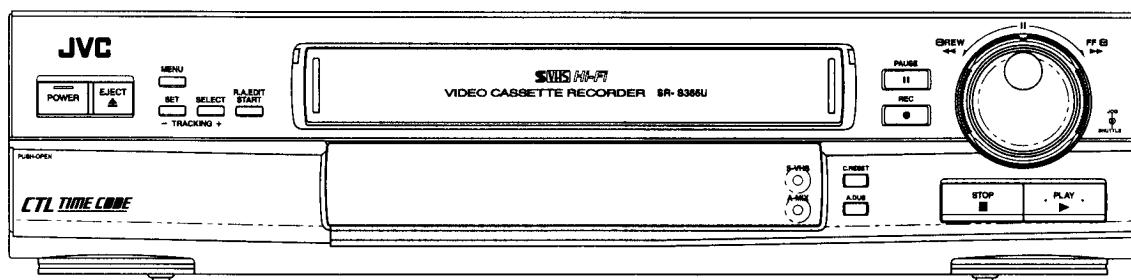
JVC®

VIDEO CASSETTE RECORDER

SR-S365U

INSTRUCTIONS

Hi-Fi
SVHS



For Customer Use:

Enter below the Serial No. which is located on the rear of cabinet. Retain this information for future reference.

Model No. SR-S365U

Serial No. _____

SAFETY PRECAUTIONS

**CAUTION**

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**ATTENTION**

RISQUE D'ELECTROCUSSION
NE PAS OUVrir



ATTENTION: POUR EVITER TOUT RISQUE D'ELECTROCUSSION
NE PAS OUVrir LE BOITIER.
AUCUNE PIECE INTERIEURE N'EST
A REGLER PAR L'UTILISATEUR.
SE REFERER A UN AGENT QUALIFIE EN CAS DE PROBLEME.



Le symbole de l'éclair à l'intérieur d'un triangle équilatéral est destiné à alerter l'utilisateur sur la présence d'une "tension dangereuse" non isolée dans le boîtier du produit. Cette tension est suffisante pour provoquer l'électrocution de personnes.



Le point d'exclamation à l'intérieur d'un triangle équilatéral est destiné à alerter l'utilisateur sur la présence d'opérations d'entretien importantes au sujet desquelles des renseignements se trouvent dans le manuel d'instructions.

*Ces symboles ne sont utilisés qu'aux Etats-Unis.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

This unit should be used with 120 V AC only.

CAUTION:

To prevent electric shocks and fire hazards, do NOT use any other power source.

NOTE:

The rating plate (serial number plate) is on the rear of the unit.

INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION

CHANGES OR MODIFICATIONS NOT APPROVED BY JVC COULD VOID USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

AVERTISSEMENT:

POUR EVITER LES RISQUES D'INCENDIE OU D'ELECTROCUSSION, NE PAS EXPOSER L'APPAREIL A L'HUMIDITE OU A LA PLUIE.

Ce magnétoscope ne doit être utilisé que sur du courant alternatif en 120 V.

ATTENTION:

Afin d'éviter tout risque d'incendie ou d'électrocution, ne pas utiliser d'autres sources d'alimentation électrique.

REMARQUE:

La plaque d'identification (numéro de série) se trouve sur le panneau arrière de l'appareil.

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Department of Communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", NMB-003 édictée par le ministre des Communications.

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INTRODUCTION

Thank you for purchasing the JVC SR-365U Video Cassette Recorder. To obtain the best performance from your new video recorder, please read this instruction manual carefully before use.

MAJOR FEATURES

■ High-quality picture

S-VHS recording/playback with more than 400 lines of horizontal resolution for professional-looking results in editing and dubbing.

■ Assemble/Insert editing facility

(With optional RM-G800U Editing Controller connected)

Simply connect the SR-S365U and another deck to the RM-G800U Editing Controller (optional) for simple, inexpensive, and accurate editing.

■ Built-in CTL time code generator/reader

Allows you to take advantage of error-proof editing in combination with the RM-G800U. (The CTL time code generator can be set only with the RM-800U).

■ RS-232C Interface connector for remote operation

VCR operation can be controlled from a connected personal computer. (EP mode recording is not available).

■ Audio dubbing facility

Additional sound can be recorded on the normal audio track (monaural) of a previously recorded tape. (SP mode only)

■ Self audio dubbing facility

Hi-Fi sound can be dubbed on the normal audio track (monaural) of the same recorded tape (SP mode only).

■ Random assemble editing facility

Simply connect the SR-S365U to the the remote pause connector of another VCR and you can edit up to 8 scenes automatically.

■ Shuttle/jog dial

Slow-motion playback and variable-speed search are available in both forward and reverse directions for quick cueing.

■ Two-channel Hi-Fi audio/One-channel Normal audio

■ Hi-Fi sound ON/OFF switching available (menu switch)

■ Digital hour meter display

■ Wired remote controller (optional RM-G30U) available.

Note:

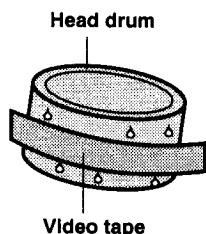
Use only RM-G800U models with an "X" next to the model name on the packing case and on the serial number plate on the bottom of the unit. If there is no "X" mark, the controller does not support CTL time code editing.

INTRODUCTION

PRECAUTIONS

VCR

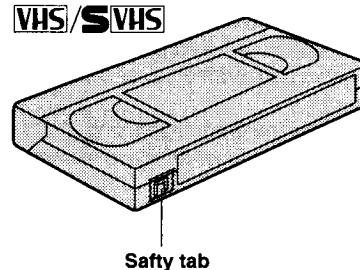
- DO NOT use the recorder in places subject to the following conditions:
 - extreme heat, cold, or humidity,
 - dust,
 - near appliances generating strong magnetic fields,
 - vibrations, or
 - poor ventilation.
- Be careful of moisture condensation.
DO NOT use the recorder immediately after moving it from a cold place to a warm place. This will cause water vapor to condense on the still-cold video head drum and tape guides and may damage the tape and the recorder.



- Handle the recorder carefully.
 - DO NOT block the ventilation openings.
 - DO NOT place anything heavy such as a monitor on the recorder.
 - DO NOT place liquids on the top of the recorder.
 - Use in horizontal (flat) position only.
- During transportation,
 - Avoid excessive shocks to the recorder during packing and transportation.
 - Before packing, be sure to remove the cassette from the recorder.
- Proper maintenance such as cleaning dust, adding oil, or replacing parts are necessary to obtain optimum performance and a longer service life. We recommend you do maintenance on a regular basis (once every 1000 hours). Total drum rotation hours can be checked via on-screen display or display(see page 17).

VIDEO CASSETTES

- This recorder uses S-VHS and VHS cassettes.
S-VHS : ST-120 for 120 minutes, ST-90 for 90 minutes, ST-60 for 60 minutes, and ST-30 for 30 minutes.
VHS : T-120 for 120 minutes, T-90 for 90 minutes, T-60 for 60 minutes, and T-30 for 30 minutes.
 - Do not use T-160/T-180 (more than 130 minutes) cassettes.
 - The optional cassette adapter (SA-CP11U) is required when using C-size cassettes. Use ST-C20 or T-C20 cassette. Do not use T-C30/ST-C30 or anything longer.
- DO NOT expose the cassettes to direct sunlight. Keep them away from heaters.
- DO NOT expose the cassettes to extreme humidity, violent vibrations or shocks, strong magnetic fields (near a motor, transformer or magnet), or excessive dust.
- Place the cassettes in cassette cases and position vertically.
- To prevent accidental erasure, remove the cassette's safety tab. To record on a cassette whose safety tab has been removed, cover the hole with adhesive tape.

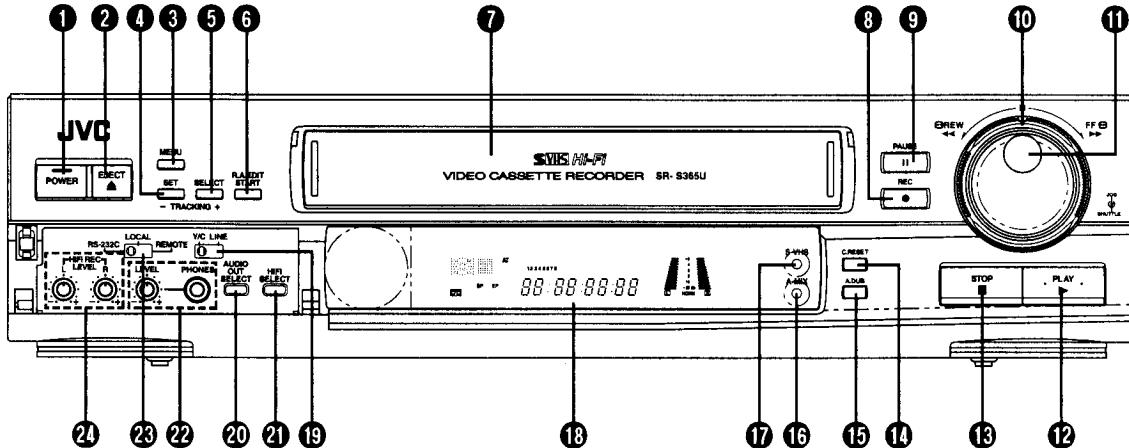


WARNING:

It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast, or cable program and in any literary, dramatic, musical, or artistic work embodied therein.

CONTROLS AND FUNCTIONS

FRONT PANEL



① POWER button (with LED)

Turns the power on and off. The LED on the button and the counter display light when the power is turned on.

② EJECT button

Ejects the cassette tape.

③ MENU button

- Activates the Menu Set mode and the program setting display for Random Assemble Editing (R.A.EDIT). Display panel and monitor screen change to the Menu Set mode.
- Displays the Menu Switch-2 setting display and the hour meter display when pressed with the Stop button.

Menu displays are output through all the video output connectors on the rear panel.

④ SET/TRACKING- button

- Sets On-Screen Menu data or Random Assemble Editing (R.A. EDIT) programs.
- Adjusts tracking in playback. Also used for tracking adjustment in slow-motion playback.
- Suppresses vertical dancing of still pictures.

⑤ SELECT/TRACKING+ button

- Selects On-Screen Menu setting items or Random Assemble Editing (R.A.EDIT) items.
- Adjusts tracking in playback. Also used for tracking adjustment in slow mode.
- Suppresses vertical dancing of the still pictures.

⑥ R.A.EDIT START button

Starts random assemble editing. Lights during executing of random assemble editing.

⑦ Cassette loading slot

⑧ REC button

- Starts recording when pressed together with the PLAY button.
- When pressed and held in the Play mode, switches the monitor screen from playback picture to E-E display, enabling you to monitor the input video signal.

⑨ PAUSE button

- Temporarily stops recording when pressed in the Record mode. To re-start recording, press the PLAY button.
- Displays a still picture when pressed in the Play mode.
- Advances the frame when pressed in the Still mode.
- Hold for two or more seconds to engage slow-motion playback. If the Still mode was entered from the Reverse Search mode, reverse slow-motion playback starts.

⑩ Shuttle search dial

- Use the outer dial for shuttle search.
- In the Stop mode, turn clockwise to fast-forward the tape or counterclockwise to rewind the tape.
 - In the Play or Still modes, turn clockwise to search in the forward direction, and counterclockwise to search in the reverse direction. The further the dial is rotated, the faster the search speed. Releasing the dial produces a still picture.
 - Turning the dial as far as it will go and releasing it will engage continuous search at maximum speed (SP mode: 7X normal speed, EP mode: 15 X normal speed)

⑪ Jog dial

- Use the inner dial for frame-by-frame jog search.
- In the Play or Still mode, turn clockwise for frame advance, and counterclockwise for frame reverse. Tape speed corresponds to how fast you rotate the dial. Releasing the dial produces a still picture.

CONTROLS AND FUNCTIONS

FRONT PANEL

⑫ PLAY button

- Starts playback.
- Starts recording when pressed with the REC button.
- Re-starts normal recording when pressed in the Record-Pause mode.
- Starts audio dubbing when pressed in the Audio Dubbing Standby mode.

⑬ STOP button

Stops the tape in any mode.

⑭ C.RESET (Counter reset) button

- Resets the CTL time counter to 00:00:00:00. (Menu Switch No. 352 COUNTER MODE must be set to CTL)
* CTL time code cannot be reset.
- Cancels Random Assemble Editing (R.A.EDIT) settings.

⑮ A.DUB (Audio dubbing) button

- Engages the Audio Dubbing Standby mode in the still mode. To start audio dubbing, press PLAY.

⑯ A.MIX (Audio mixing) indicator

Lights when mixed Hi-Fi sound and normal sound is selected for audio output with ⑳ AUDIO OUT SELECT.

⑰ [S-VHS] Indicator

Whenever memory switch No. 100 "S-VHS SELECT" is set to "AUTO", this indicator lights in the REC or EE mode. If a VHS cassette is loaded or a tape is recorded or played back in the VHS mode, the S-VHS indicator goes off.

⑱ Display panel

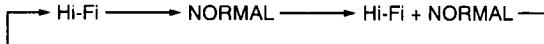
Indicates Hi-Fi, audio level meter, operation status, and time counter. See page 8 "Display" for details.

⑲ Y/C.LINE (Video Input Y/C. LINE) select switch

- Y/C : To select the separate YC signals input to the rear-panel Y/C IN connector.
LINE : To select the composite video signal input to the rear-panel VIDEO LINE IN connector.

⑳ AUDIO OUT SELECT (Audio output select) button

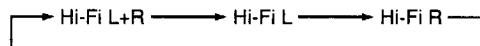
- Selects the soundtrack output from the AUDIO OUT, AUDIO MONITOR OUT, and PHONES connectors. The soundtrack changes from Hi-Fi → NORMAL → Hi-Fi+NORMAL → Hi-Fieach time the button is pressed.



- When mixed HiFi sound and normal sound is selected, the ⑯ A.MIX indicator lights.

㉑ HI-FI SELECT (HIFI audio output select) button

- Selects the Hi-Fi audio channel when the Hi-Fi audio is selected with the AUDIO OUT SELECT button ⑳.
- The channel changes as follows each time the button is pressed.



㉒ Headphone output section

- PHONES (Headphone) output connector

Connect to a headphone (3.5 dia, stereo). Audio signal selected with the ⑳ AUDIO OUT SELECTOR ㉑ Hi-Fi OUT SELECT button is output.

- LEVEL headphones output level control knob
Adjusts the level of the audio output from the PHONES connector.

㉓ RS-232C/LOCAL/REMOTE select switch

Selects remote or local operation.

RS-232C : To operate the VCR via a computer connected to the RS-232C connector on the rear panel. The VCR cannot be operated with the front panel controls when this mode is selected. (Except POWER, EJECT, STOP, TRACKING and AUDIO OUT/Hi-Fi SELECT buttons.)

LOCAL : To operate the VCR with the front panel controls. Remote operation is not possible.

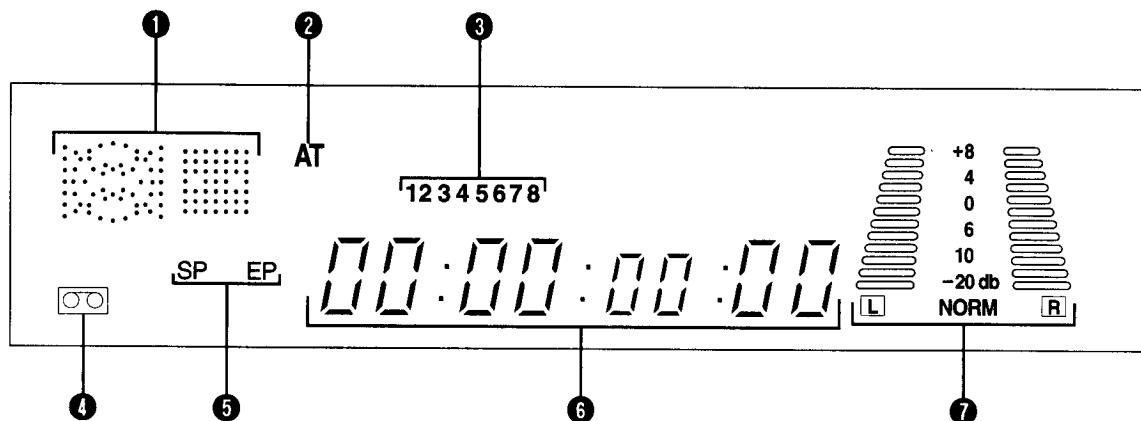
REMOTE : To operate the VCR with a remote control unit connected to the rear panel REMOTE connector or SERIAL REMOTE connector. The VCR cannot be operated with the front panel controls when this mode is selected. (Except POWER, EJECT, STOP, TRACKING and AUDIO OUT/Hi-Fi SELECT buttons.)

㉔ HI-FI REC LEVEL L/R adjust knob

Adjusts the Hi-Fi recording level for the L and R channels.

CONTROLS AND FUNCTIONS

DISPLAY SECTION



① Operation modes

The operation modes are displayed as follows. Broken line indicates blinking display.

Play	Still	Record	Record pause	Audio dubbing	Fast-forward search
▶		○	○	▷	▷▷
FF	Rewind	Slow play		Insert mode	Reverse search
		Forward	Reverse		
◀	◀	▶	◀	○	◀◀

* Insert is possible with the RM-G800U Editing Controller.

② AT indicator

Lights when memory switch No. 005 "AUTO TRACKING" is set to "ON".

③ Random Assemble Editing (R.A.EDIT) Program Numbers

Shows the program number of the random assemble edit currently being executed.

④ (Cassette)

- Lights when cassette is loaded.
- Blinks during unloading the cassette.

⑤ SP/EP

Indicates SP when recording and playing in the VHS Standard Play mode and EP in the Extended Play mode.

* Select Record mode with Menu Switch No. 335 RECORDING MODE.

⑥ Counter

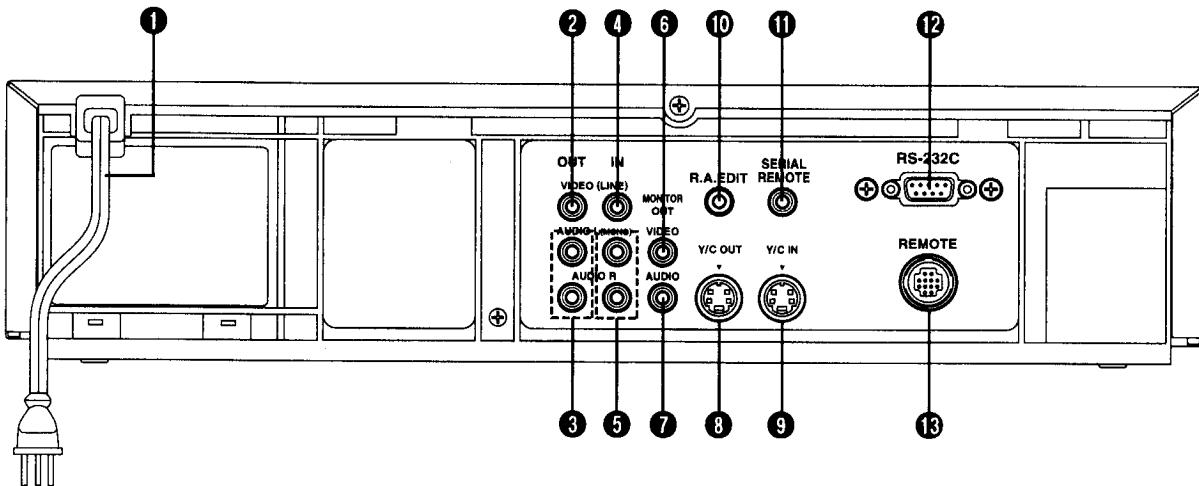
- Displays CTL counter or CTL time code.
(Hour . Minute . Second . Frame)
 - * CTL counter is reset to 00:00:00:00 when the cassette is loaded.
 - * Select CTL counter and CTL code with Menu Switch No. 352 COUNTER MODE.
 - Item numbers and set values are displayed numerically during menu switch setting.

⑦ Sound level meter

- Displays HiFi sound recording level.
- Displays Hi-Fi or normal sound level during playback.
- Displays NORMAL when normal sound is selected with the AUDIO OUT SELECT button.
- Displays L or R when Hi-Fi sound is selected with the AUDIO OUT SELECT button.

CONTROLS AND FUNCTIONS

REAR PANEL



① Power cable

Connect the power cable plug to an AC 120 V 60 Hz outlet.

② VIDEO LINE OUT connector (RCA)

Outputs the input or playback composite video signal.

③ AUDIO OUT connector (RCA)

Outputs the audio signal selected with the front panel AUDIO OUT SELECT button or HiFi OUT SELECT button.

Outputs the signal input to the AUDIO IN connectors in the Stop or Record modes.

④ VIDEO LINE IN connector (RCA)

Accepts the composite video signal.

⑤ AUDIO IN connector (RCA)

Accepts the selected audio signal.

- The input audio signal is recorded on the HiFi sound track and normal sound track in Record mode (with Menu Switch No. 200 HiFi AUDIO REC set to ON). Note that the normal sound track is monaural.
- When a single audio input cable (monaural) is in use, the same audio signal received at the AUDIO L (MONO) connector is recorded on both the L and R channels of the HiFi sound track.

⑥ VIDEO MONITOR OUT connector (RCA)

Outputs the input or playback composite video signal.

⑦ AUDIO MONITOR OUT connector

Outputs the audio signal selected with the front panel AUDIO OUT SELECT button or HiFi OUT SELECT button.

Outputs the signal input to the AUDIO IN connectors in the Stop or Record modes.

⑧ Y/C OUT connector (4 pin)

Outputs the separated Y/C signal.

⑨ Y/C IN connector (4 pin)

Accepts the separated Y/C signal.

⑩ R.A.EDIT (Random Assemble Editing) connector (3.5 mm dia. mini)

Connect to the remote pause connector of another VCR to execute random assemble editing.

* See page 25 "Random Assemble Editing" for details.

⑪ SERIAL REMOTE connector (RCA)

Connect the optional RM-G30U remote control unit to receive the serial remote control signal.

* Set the front panel RS-232C/LOCAL/REMOTE switch to REMOTE.

⑫ RS-232C connector (D-SUB 9 pin)

Connect an RS-232C interface cable (cross type) to operate this VCR via a personal computer.

* Set the VCR's front panel RS-232C/LOCAL/REMOTE switch to RS-232C.

⑬ REMOTE connector (12 pin)

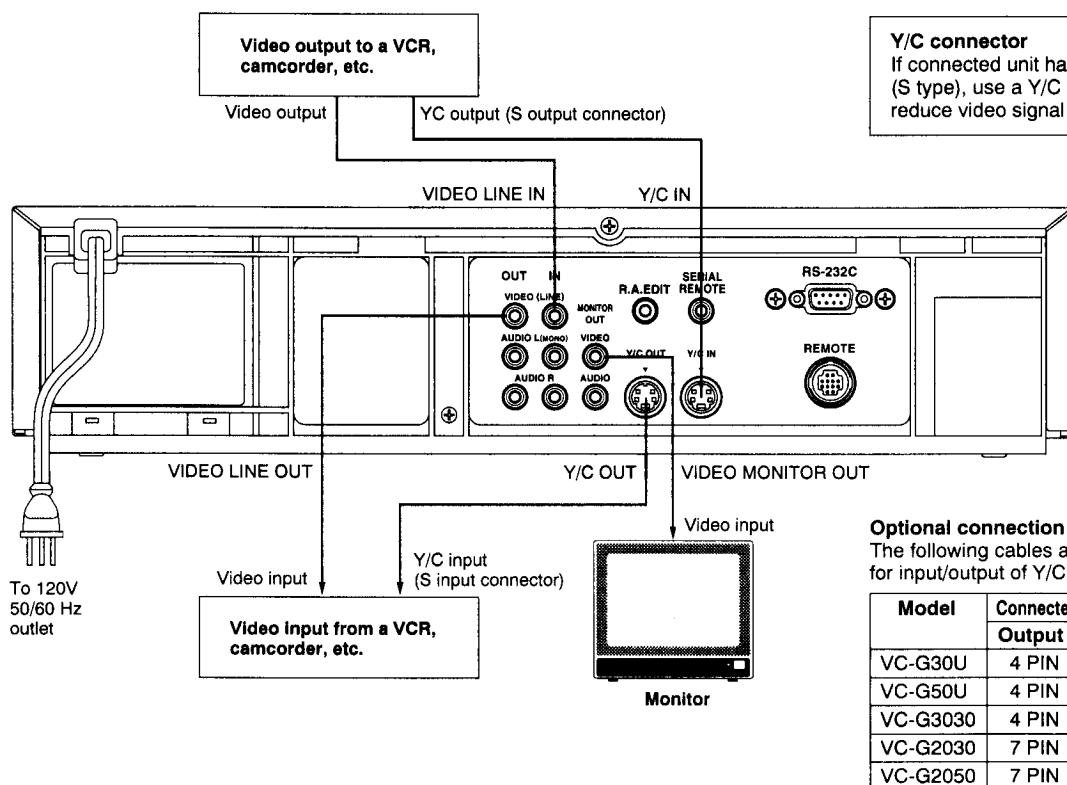
Connect the optional RM-G800U Editing Controller to receive remote control input.

* Set the front panel RS-232C/LOCAL/REMOTE switch to REMOTE.

When both the SERIAL REMOTE connector and the REMOTE connector are in use, the REMOTE connector is effective with the front panel RS-232C/LOCAL/REMOTE switch set to REMOTE.

CONNECTIONS

VIDEO CONNECTIONS

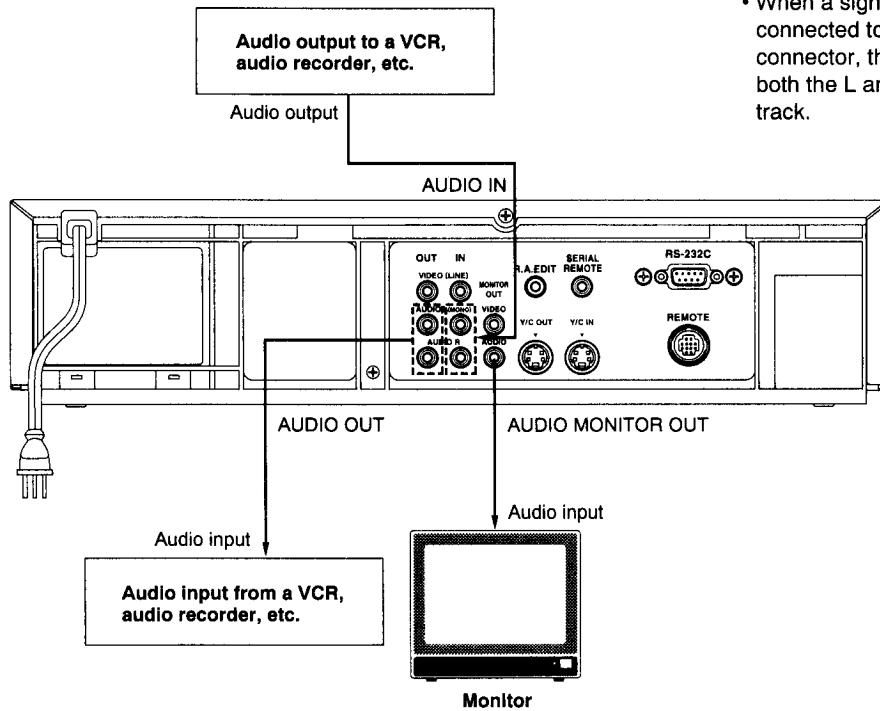


Optional connection cables

The following cables are optionally available for input/output of Y/C video signals.

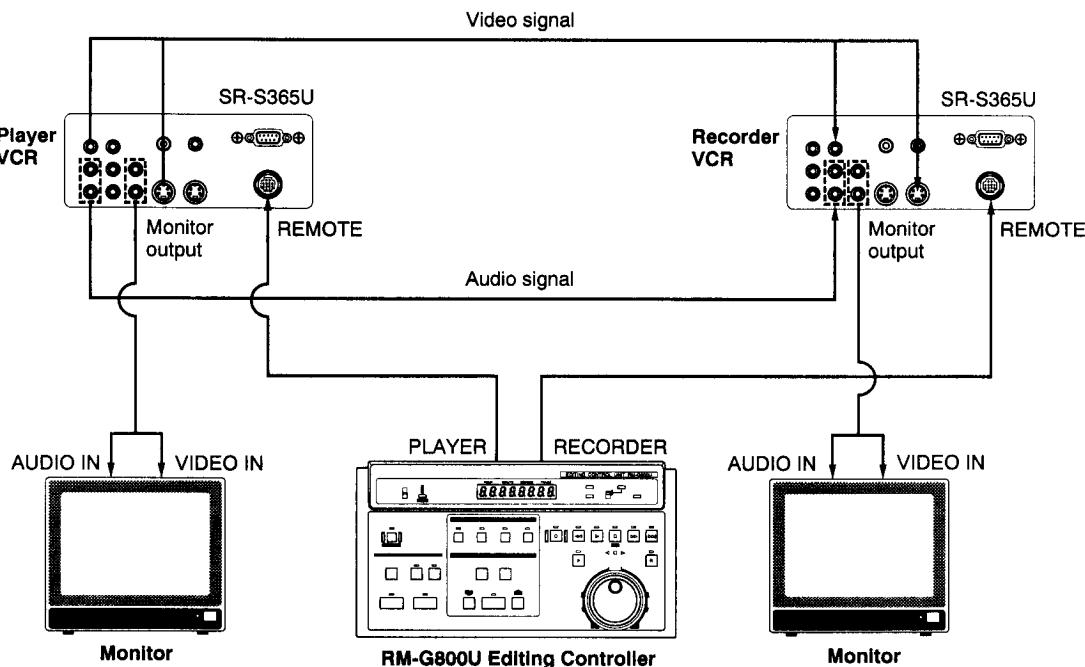
Model	Connected equipment		Length
	Output	Input	
VC-G30U	4 PIN	4 PIN	3 m
VC-G50U	4 PIN	4 PIN	5 m
VC-G3030	4 PIN	7 PIN	3 m
VC-G2030	7 PIN	4 PIN	3 m
VC-G2050	7 PIN	4 PIN	5 m

AUDIO CONNECTIONS



CONNECTIONS

EDITING SYSTEM CONNECTIONS



* Be sure to turn off the VCR before connecting the remote control cable.

Remote extension cable (option)

The RM-G800U's remote cable is about 85 cm long. To extend this cable, use the optional VC-G8030U (3 m) remote extension cable.

- Connecting the optional RM-G800U Editing Controller allows assemble and insert editing.
- Set the VCR's front panel RS-232C/LOCAL/REMOTE switch to REMOTE.

Note:
When the RM-G800U is connected, the SERIAL REMOTE connector is disabled.

Note:
Use only RM-G800U models with an "X" next to the model name on the packing case and on the serial number plate on the bottom of the unit. If there is no "X" mark, the controller does not support CTL time code editing.

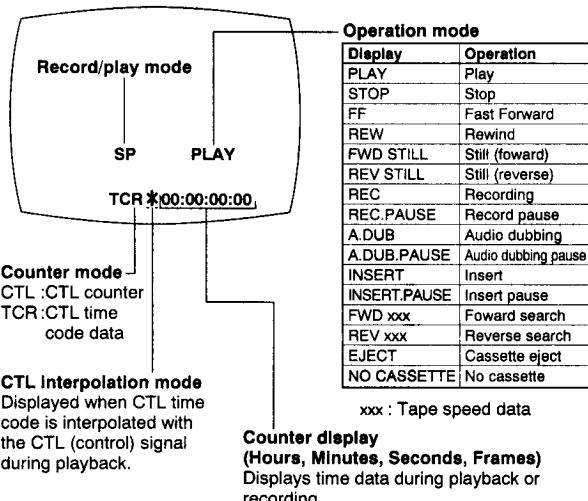
ON-SCREEN/MENU SWITCH

ON-SCREEN DISPLAY

VCR status, menu settings, R.A. Edit settings, and counter data are displayed on-screen.

- The on-screen display data is output through all the video output connectors (VIDEO LINE OUT, Y/C OUT and VIDEO MONITOR OUT) on the rear panel. Display information is superimposed on the playback video signal in the Play mode and on the input video signal in the Stop or Record mode. If no signal is input, data is displayed on a blue-back screen.

1 Normal display



The following information is displayed on-screen.

1 Counter and VCR operation modes display

Normal display

- Displays when Menu Switch No. 500 ONSCREEN DISPLAY is set to ON. Set this to OFF to cancel the on-screen display.
- Simultaneous display of counter and VCR modes or counter display only can be selected with Menu Switch No. 504 INFORMATION ON SELECT.

2 Menu Switch Setting Display

Menu setting display.

- Press MENU to call up the main menu screen. Then select MEMORY SW with the SELECT and SET buttons. The menu switch setting display appears.
- Press MENU after menu switch setting to restore the normal display.

* See page 14 "Menu Switch Setting" for details.

3 Program Setting Display for Random Assemble Editing

Random assemble editing program setting display

- Press MENU button to call up the main menu display. Select R.A.EDIT with the SELECT and SET buttons. The random assemble editing program setting display appears.

* See page 25 "Random Assemble Editing" for details.

4 Hour Meter Display

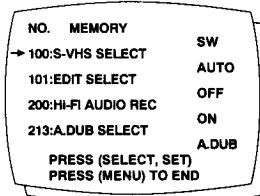
Displays total drum running time.

- Press MENU while pressing STOP to call up the sub-menu display. Select HOUR METER with the SELECT and SET buttons.

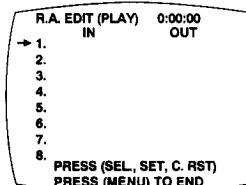
- Press MENU again to restore the normal display.

* See page 26 "Hour Meter Display" for details.

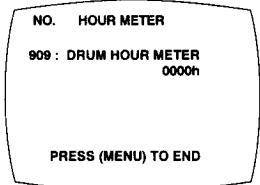
2 Menu switch setting display



3 Random assemble editing program setting display

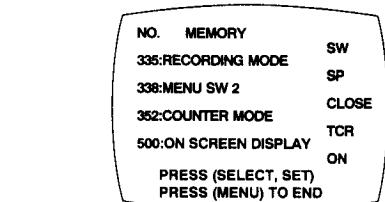
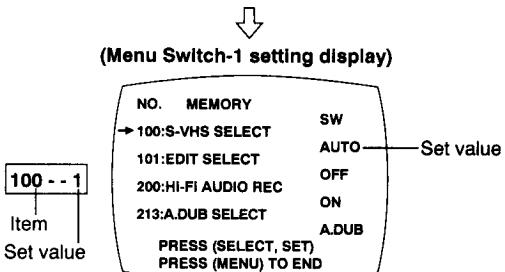
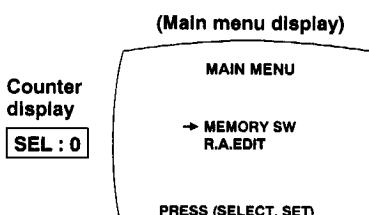
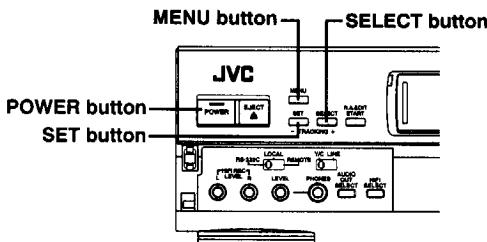
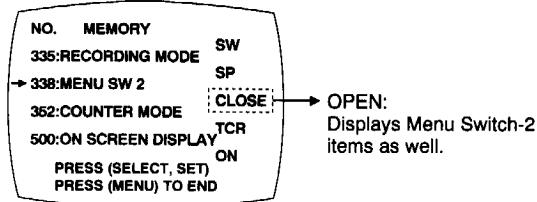


4 Hour meter display



ON-SCREEN/MENU SWITCH

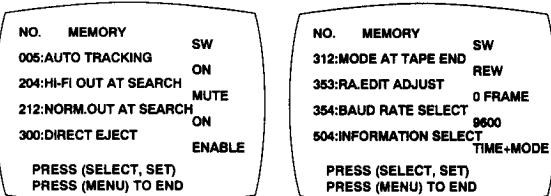
MENU SWITCH SETTING



With Menu Switch No. 338
MENU SW2 set to OPEN

SELECT button

(Menu Switch-2 setting display)



In addition to its front panel control switches, the SR-S365U is provided with on-screen "menu switches" which enable you to change the settings of a wide range of other functions. To protect the menu settings data when the power is turned off, the data are stored in a built-in non-volatile memory. Use the Menu Set mode to cancel any preset functions that you don't require or to change certain parameters as desired.

Menu Switch Configuration

Menu switch setting items are separated into two levels to enhance operability.

■ Menu Switch-1

Operable when Menu Set mode is engaged. Includes frequently used switches such as record mode, Hi-Fi ON/OFF, and so on.

■ Menu Switch-2

The switches are activated by setting Menu Switch-1 No. 338 MENU SW2 to OPEN. Less frequently used switches are allocated to this level. Menu Switch No. 338 MENU SW2 is factory-set at CLOSE.

Menu Setting

- [1] Turn the power on.
- [2] Press MENU.
→ The setup menu appears on the monitor screen.
The counter display also switches to the Menu Set mode.
- [3] Press SELECT to place the cursor on MEMORY SW, then press SET.
→ The menu switch setting display appears.
- [4] Press SELECT to place the cursor on the item you want to set.
- [5] Press SET to change the setting as desired.
To continue setting, repeat steps [4] and [5].

Menu switches in the Menu Switch-2 level can be set by setting Menu Switch No. 338 MENU SW2 to OPEN.

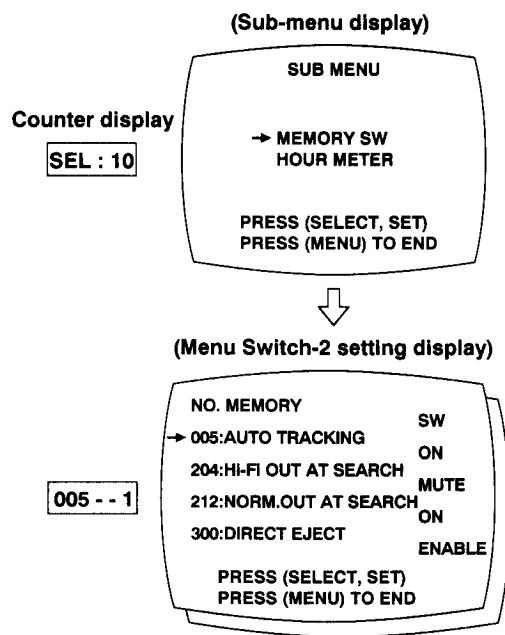
- [6] To exit the menu, press MENU.
→ The display panel and the monitor screen switch back to the operation status display.

Note:

The menu switches related the recording mode cannot be set during recording.

ON-SCREEN/MENU SWITCH

MENU SWITCH SETTING



Setting Menu Switch-2 Items

When Menu Switch No. 338 MENU SW2 is set to OPEN, you can set items in Menu Switch-2 with the main menu. Use the same procedure as in Menu Switch-1 setting. You can also enable Menu Switch-2 settings even if Menu Switch No. 338 set to CLOSE. To do so, follow the steps below.

- 1 Turn the power ON.
- 2 Press MENU while pressing STOP.
→ The sub-menu display appears on-screen.
- 3 Press SELECT to move the cursor to MEMORY SW, then press SET.
→ The Menu Switch-2 setting display appears on screen.
- 4 Press SELECT to locate the item you want to set.
- 5 Press SET to change the setting as desired.
- 6 To end menu switch setting, press MENU.
→ The display panel and the monitor screen switch back to the operation status display.

LIST OF MENU SWITCHES

Names and descriptions of the menu switches are given below. See reference pages for details.

Menu Switch-1

No.	Name	Description	Reference page
100	S-VHS SELECT	S-VHS recording ON/OFF when using the S-VHS tape	15
101	EDIT SELECT	Selection of picture quality in Play modes	15
200	Hi-Fi AUDIO REC.	Hi-Fi Audio recording ON/OFF	15
213	A.DUB SELECT	Audio dubbing mode selection	15
335	RECORDING MODE	Record mode selection (SP/EP)	15
338	MENU SW 2	Menu Switch-2 item selection	15
352	COUNTER MODE	Counter display mode selection (CTL/TCR)	15
500	ON SCREEN DISPLAY	On-screen display ON/OFF	15

Menu Switch-2

No.	Name	Description	Reference page
005	AUTO TRACKING	Auto tracking adjustment ON/OFF	16
204	Hi-Fi OUT AT SEARCH	Audio output selection in search mode (when setting Hi-Fi audio with AUDIO OUT SELECT button)	16
212	NORM. OUT AT SEARCH	Normal sound ON/OFF in search mode (when setting normal audio with AUDIO OUT SELECT button)	16
300	DIRECT EJECT	Eject mode selection	16
312	MODE AT TAPE END	Tape end mode selection (Auto REW ON/OFF)	16
353	R.A.EDIT ADJUST	Random assemble editing output timing	16
354	BAUDRATE SELECT	RS-232C transmission speed selection	16
504	INFORMATION SELECT	On-screen display data selection	16

ON-SCREEN/MENU SWITCH

MENU SWITCH-1 DETAILS

[] : Factory preset () : Display on the counter

Item		Set value	Description
No.	Name		
100	S-VHS SELECT	[AUTO] (1) VHS (0)	Enables or disables S-VHS Recording AUTO : Records in the S-VHS mode when an S-VHS tape is used, and records in the VHS mode when a VHS tape is used. VHS : Records in the VHS mode regardless of the tape used. Select this to record an S-VHS tape in VHS mode.
101	EDIT SELECT	[OFF] (0) DUB (1) RENTAL (2)	Selects picture quality in Play mode. OFF : Normal picture quality DUB : Select this when dubbing or editing to minimize picture quality deterioration. RENTAL : Softens the picture during playback to reduce noise.
200	Hi-Fi AUDIO REC.	OFF (0) [ON] (1)	Enables or disables Hi-Fi Audio recording OFF : Hi-Fi recording is enabled. ON : HiFi recording is disabled.
213	A.DUB SELECT	[A.DUB] (0) Hi-Fi PB (1)	Selects audio dubbing mode A.DUB : Dubs audio on the normal audio track of a recorded tape. Hi-Fi PB : Records sound from the previously recorded Hi-Fi track onto the normal audio track. Select this for self audio dubbing.
335	RECORDING MODE	[SP] (0) EP (1)	Sets the recording speed SP : Records at VHS standard mode (SP). EP : Records at VHS extended mode (EP).
338	MENU SW 2	[CLOSE] (0) OPEN (1)	Enables or disables the Menu Switch-2 setting display. CLOSE : Menu Switch-2 setting display does not appear. OPEN : Menu Switch-2 setting display is called up following the Menu Switch-1 setting display.
352	COUNTER MODE	[TCR] (4) CTL (1)	Selects counter display information. TCR : Displays CTL time code data. CTL : Displays CTL counter.
500	ON SCREEN DISPLAY	OFF (0) [ON] (1)	Enables or disables the on-screen display. OFF : On-screen display disabled. ON : On-screen display enabled.
On-screen display is output through all the video output connectors on the rear panel.			

ON-SCREEN/MENU SWITCH

MENU SWITCH-2 DETAILS

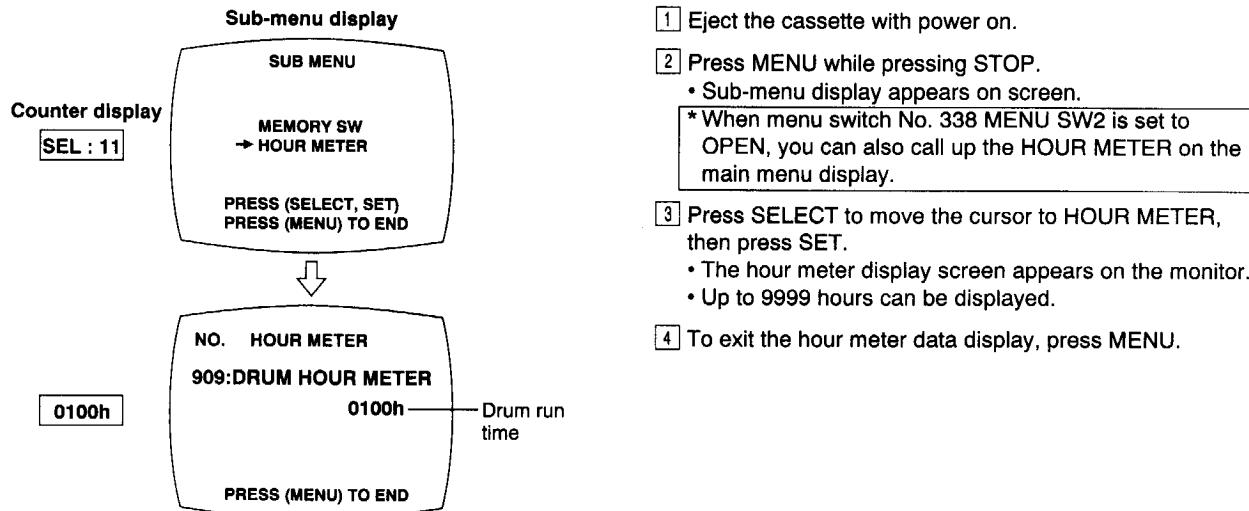
[] : Factory preset () : Display on the counter

Item		Set value	Description
No.	Name		
005	AUTO TRACKING	OFF (0) [ON] (1)	Enables or disables auto tracking. OFF : Auto tracking function disabled. Select this to manually adjust tracking during playback. ON : Automatic tracking adjustment is enabled.
204	Hi-Fi OUT AT SEARCH	[MUTE] (0) NORMAL (1)	Selects whether Hi-Fi sound is muted or normal sound is output during search when no Hi-Fi is recorded. (Effective only when setting Hi-Fi audio with AUDIO OUT SELECT button.) MUTE : Mutes the Hi-Fi sound during search and when no Hi-Fi is recorded. NORMAL : Normal sound is output during search and when no Hi-Fi is recorded.
212	NORM OUT AT SEARCH	OFF (0) [ON] (1)	Selects whether or not normal audio is output during search. (Effective only when setting normal audio with AUDIO OUT SELECT button.) OFF : Mutes the normal audio sound. ON : Delivers the normal audio sound.
300	DIRECT EJECT	DISABLE (0) [ENABLE] (1)	Sets the direct eject mode. DISABLE : Eject possible only in Stop mode. ENABLE : Eject possible in any mode.
312	MODE AT TAPE END	STOP (0) [REW] (1)	Selects the mode engaged when the tape ends. STOP : Stops at tape end. REW : Rewinds to the beginning and stops.
353	R.A.EDIT ADJUST	-4 FRAMES (0) -3 FRAMES (1) -2 FRAMES (2) -1 FRAME (3) [0 FRAME] (4) 1 FRAME (5) 2 FRAMES (6) 3 FRAMES (7)	Sets the timing for random assemble editing. Edit points can be shifted by the set values.
354	BAUDRATE SELECT	1200 (0) 2400 (1) 4800 (2) [9600] (3)	Sets the transmission speed (bps) for RS-232C data.
504	INFORMATION SELECT	TIME (0) [TIME+MODE] (1)	Selects what information is to be displayed on-screen. TIME : Displays time data only. TIME+MODE : Displays time data and VCR mode data.

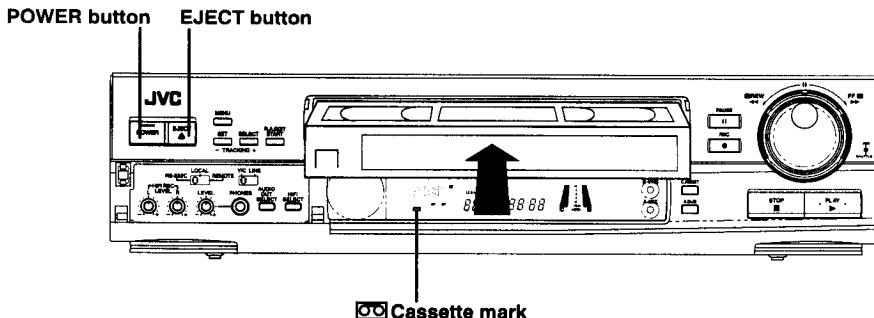
ON-SCREEN/MENU SWITCH

HOUR METER DISPLAY

The hour meter displays the total running time of the video head drum.



CASSETTE TAPE LOADING AND UNLOADING



LOADING A CASSETTE

- [1] Press the POWER button to turn the power on.
 - The POWER indicator and the counter display are lit.

When a cassette is loaded with power off, the power is automatically turned on.

- [2] Insert a cassette with its label side facing you.
 - VCR power comes on automatically and the cassette is pulled in by the loading mechanism.
 - The VCR enters the Stop mode with the cassette mark on the display.
 - The S-VHS indicator lights when an S-VHS cassette is loaded.
 - The counter is reset to 00:00:00:00.
 - The CTL time code data is not reset.

UNLOADING

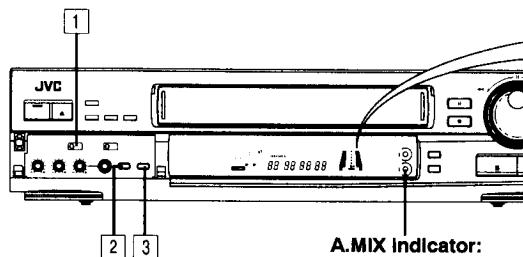
- [3] Press EJECT.
 - The cassette is ejected automatically.
 - The cassette mark on the display disappears.

Once this starts, do not try to withdraw the cassette. Wait until loading has completed, then press EJECT.

- The eject operation can be restricted with the setting of menu switch No. 300 "DIRECT EJECT".
- If it is set to "DISABLE", you can eject the cassette only in the Stop mode.

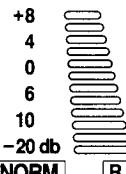
PLAYBACK

PREPARATION



A.MIX Indicator:
Lights when mixed sound
(Hi-Fi + normal) is selected
for output.

Level meter display



Lights when
HiFi L channel
sound is output.
Lights when
HiFi R channel
sound is output.
Lights when
normal sound is output.

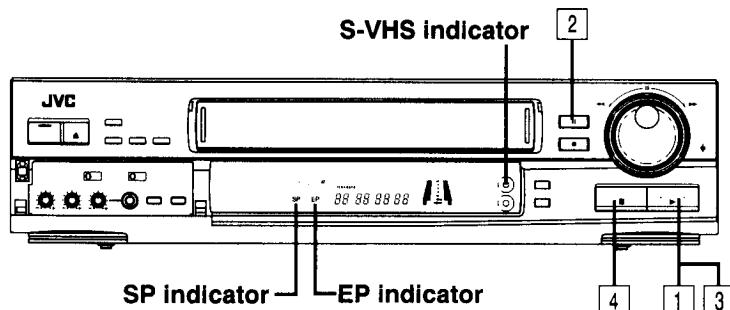
Front Panel Controls Setting

- 1 Set the RS-232C/LOCAL/REMOTE switch as desired.
Set it to LOCAL to operate the VCR using the front panel controls.
- 2 Select the desired soundtrack. Selected mode is displayed on the display panel.
 - The soundtrack changes from Hi-Fi sound → Normal sound → Mixed sound (Hi-Fi + Normal) ... each time the button is pressed.
- 3 If you select Hi-Fi audio, press the Hi-Fi MONITOR SELECT button to choose the Hi-Fi channel.
 - The channel changes from Hi-Fi L+R → Hi-Fi L → Hi- ... each time the button is pressed.

Menu Switch Setting

- Select playback picture quality
No. 101 EDIT SELECT see page 15
Factory-set at OFF
 - Select counter display mode
No. 352 COUNTER MODE see page 15
Factory-set at TCR
 - Select the mode at tape end (Menu Switch-2)
No. 312 MODE AT TAPE END see page 16
Factory-set at REW
- Set others as required.

BASIC PLAYBACK OPERATION



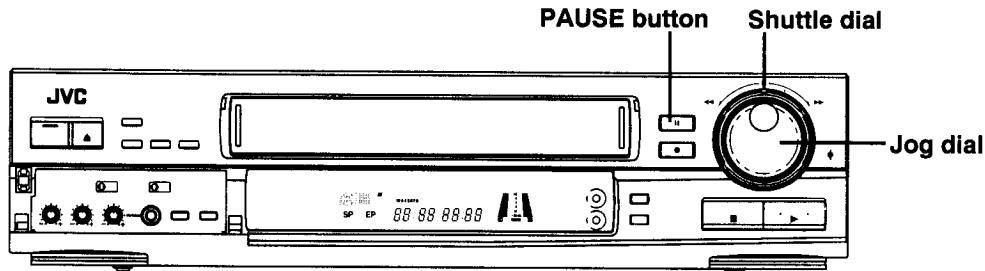
- 1 Press PLAY to start playback.
→ The Playback indicator lights.
- VHS/S-VHS selection is automatic. The S-VHS indicator lights when an S-VHS tape is played back.
- Tape speed selection is automatic. The SP or EP indicator lights.
- Press the REC button during playback to monitor input signals. The signals will be displayed for as long as you hold the button.

- 2 To stop playback temporarily, press PAUSE.
→ A still picture is displayed and the Still indicator lights.
- 3 To re-start playback, press PLAY.
- 4 To end playback, press STOP.
→ The VCR enters the Stop mode.

To protect the tape, the Still mode is automatically canceled after about 5 minutes.

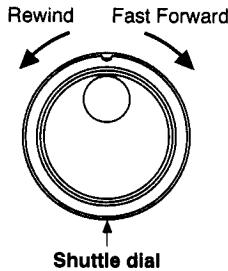
PLAYBACK

SPECIAL-EFFECTS PLAYBACK



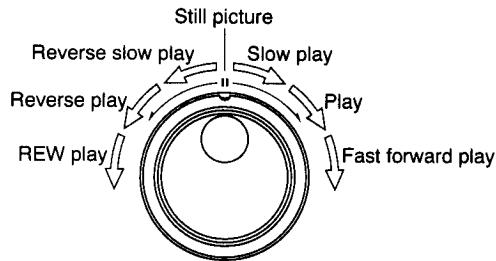
Fast Forward/Rewind

- When the tape is stopped, turning the shuttle dial as far as it will go engages the Fast-Forward or Rewind mode. Operation continues even if you release the dial.
 - Turn clockwise to fast-forward the tape.
 - Turn counterclockwise to rewind the tape.



Search with Shuttle Dial

- Turn the SHUTTLE ring in the Play or Still mode.
 - To search in the forward or reverse direction, turn the SHUTTLE ring gradually clockwise or counterclockwise. The further you turn the dial, the faster the search speed. Search speed changes in five steps from 1/30X to 7X (15X in EP mode),



- Releasing the ring produces a still picture.

- When the SHUTTLE ring is fully turned and released, forward or reverse search continues at maximum speed.
 - Press PLAY to resume normal playback or press PAUSE to obtain a still picture.

HiFi sound is not output during search, frame-by-frame playback and slow-motion playback. If normal sound has been selected with the [AUDIO OUT SELECT] button, you can select whether or not to output normal sound in the Search mode with menu switch No. 212 "NORM OUT AT SEARCH".

When HiFi sound is selected with the AUDIO OUT SELECT button, you can select whether or not to output normal sound during search or slow-motion playback with menu switch No. 204 "Hi-Fi OUT AT SEARCH".

Frame-by-Frame Playback and Slow-Motion Playback

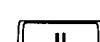
Frame-by-Frame Playback

- Press PAUSE while in the Still mode to advance the picture frame by frame.



Slow-Motion Playback

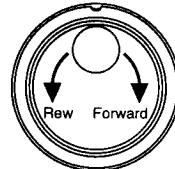
- Press PAUSE and hold for about 2 seconds to start slow-motion playback at 1/6 normal speed.
 - The direction of slow-motion playback (forward or reverse) is determined by the direction of playback when the Still mode was engaged.



Press for about 2 seconds

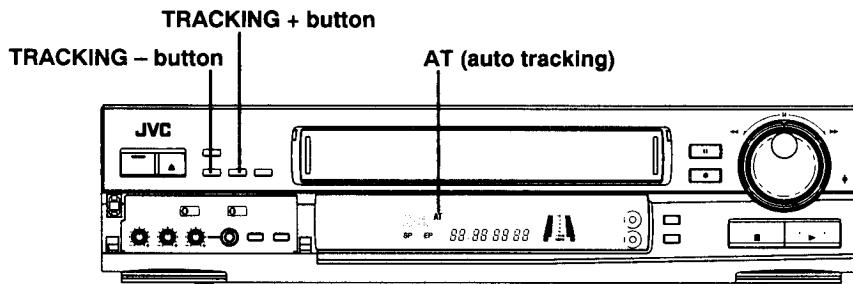
Frame-by-Frame Playback with Jog Dial

- Turn the JOG dial clockwise for frame advance; counterclockwise for frame reverse in the Play or Still mode.
 - Turning the dial moves the picture one frame at a time in the corresponding direction. The tape speed corresponds to the speed the dial is rotated.
- Releasing the dial produces a still picture.
 - Around 10 frames are played back per turn of the jog dial.
 - Turning the jog dial faster starts slow-motion playback at +/- 1/6 normal speed.



PLAYBACK

TRACKING ADJUSTMENT/STILL PICTURE OSCILLATION ADJUSTMENT



Tracking Adjustment in Normal Play Mode

When Menu Switch No. 005 AUTO TRACKING is set to ON, tracking is automatically adjusted during playback. Normally this should be set to ON.

AT (Auto Tracking) is indicated on display during auto tracking mode.

■ If auto tracking adjustment is inadequate, use manual tracking adjustment.

① Press the TRACKING + and - buttons simultaneously during playback. (Otherwise, set the menu switch No. 005 AUTO TRACKING to OFF.)
→ The AT indicator disappears and the Manual Tracking mode is engaged.

② Press either TRACKING to minimize noise while monitoring the playback screen.

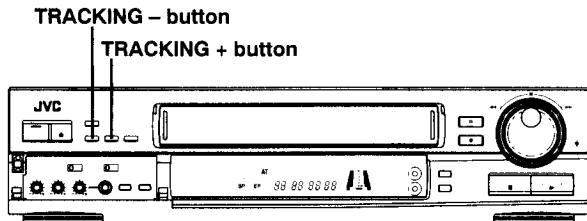
■ To restore the Auto Tracking mode, press TRACKING + and - buttons simultaneously during playback.

(Otherwise, set the menu switch No. 005 AUTO TRACKING to ON.)

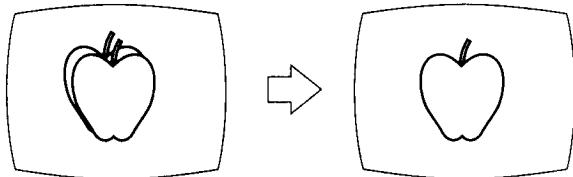
→ The AT indicator lights.

Still Picture Vertical Oscillation Adjustment

Vertical dancing in still pictures can be corrected with the TRACKING buttons.



■ Press either TRACKING button to minimize vertical dancing.



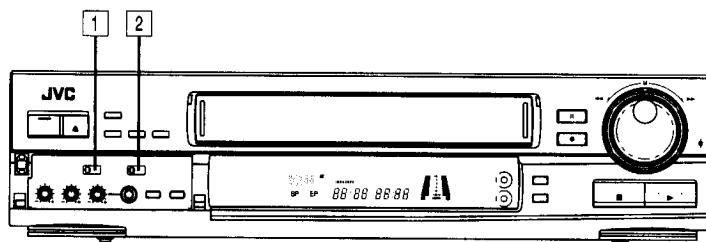
Tracking Adjustment In Slow-Motion and Search Modes

Auto tracking is disabled during slow-motion playback or search. Tracking must be adjusted manually.

■ Press either TRACKING button to minimize noise.
• Pressing the TRACKING + and - buttons simultaneously restores the initially set tracking adjustment value.

RECORDING

PREPARATION



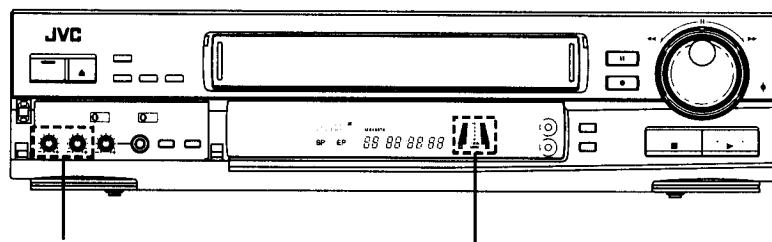
FRONT PANEL CONTROLS SETTING

- [1] Set the RS-232C/LOCAL/REMOTE switch as desired.
Set it to LOCAL to operate the VCR using the front panel controls.
- [2] Select the video input signal.
Select video input with the Y.C.LINE switch.
Y/C : Set to this position to record the separate YC signal received through the rear-panel YC IN connector.
LINE : Set to this position to record the composite video signal received through the rear-panel VIDEO LINE IN connector.

MENU SWITCH SETTING

- **Select record mode**
No. 100 S-VHS SELECT See page 15
Factory-set at AUTO
 - Set to VHS to record an S-VHS cassette tape in VHS mode.
- **Select ON/OFF of Hi-Fi sound recording**
No. 200 Hi-Fi AUDIO REC See page 15
Factory-set at ON
- **Select recording speed**
No. 335 RECORDING MODE See page 15
Factory-set at SP
- **Select mode at tape end (Menu Switch-2)**
No. 312 MODE AT TAPE END See page 16
Factory-set at REW

ADJUSTMENT OF Hi-Fi SOUND RECORDING LEVEL



The Left and Right channel Hi-Fi sound recording levels can be adjusted independently.

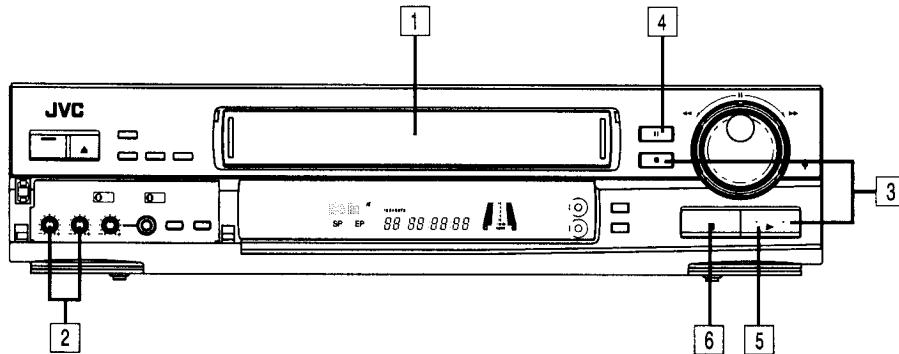
* Normal sound recording level is not adjustable.

- [1] Engage the Stop or Record Pause mode.

- [2] Turn Hi-Fi REC LEVEL R and L adjust knobs to adjust the recording level.
 - Adjust so that the level meter displays 0 dB at the peak signal level.

RECORDING

BASIC RECORDING OPERATION



- ① Load a cassette with safety tab in place. (If the tab has been removed, cover the hole with adhesive tape.)
 - The power automatically turns on when the cassette is inserted.
- ② Adjust Hi-Fi sound recording level (with Menu Switch No. 200 set to ON).
 - Adjust with the Hi-Fi REC LEVEL L/R controls.
See page 21.
- ③ Press PLAY while pressing REC to start recording.
→ The REC mark lights.

- ④ To temporarily stop recording, press PAUSE.
→ The Record-Pause mark lights.
- ⑤ To re-start recording, press PLAY.
→ The REC mark lights,
- ⑥ Press STOP to stop recording.
→ The VCR enters the Stop mode.

The VCR automatically stops when Record-Pause continues for more than 5 minutes.

CTL Time Code Recording

- CTL time code is compatible only with SP mode recording/playback.
- CTL time code is automatically recorded on the CTL track when recording starts from the beginning of the tape in the SP mode.
Time code recording starts at 00:00:00:00.

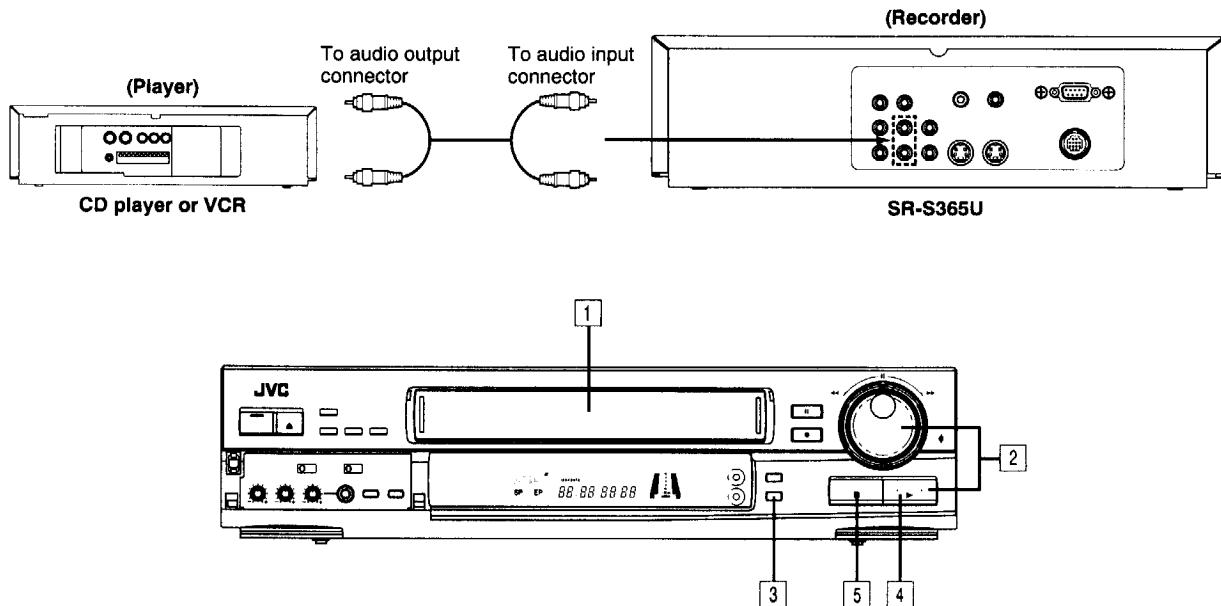
* When recording is stopped or paused, CTL time code is not recorded thereafter.

See page 31 for details on CTL time code.

RECORDING

AUDIO DUBBING

To simplify insertion of an additional or new soundtrack (such as narration or music) onto an existing recording, the SR-S365U is equipped with an audio dubbing function. Microphone or other external audio input can be recorded directly on the normal audio track (monaural). Hi-Fi sound cannot be dubbed.



Operation

- 1 Load a cassette with safety tab in place. (If the tab has been removed, cover the hole with adhesive tape.)
- 2 Search for the audio dubbing IN point.
 - Use the JOG/SHUTTLE controls to locate the IN point.
 - Engage the Still mode at the IN point.
- Set audio source to be dubbed in the player VCR.
- 3 Press A. DUB.
→ The VCR enters the Audio-Dub Pause mode.
- 4 Press PLAY to start audio dubbing.
→ The Audio Dubbing icon blinks on the display and Audio Dubbing starts.
- 5 Press STOP to stop audio dubbing.

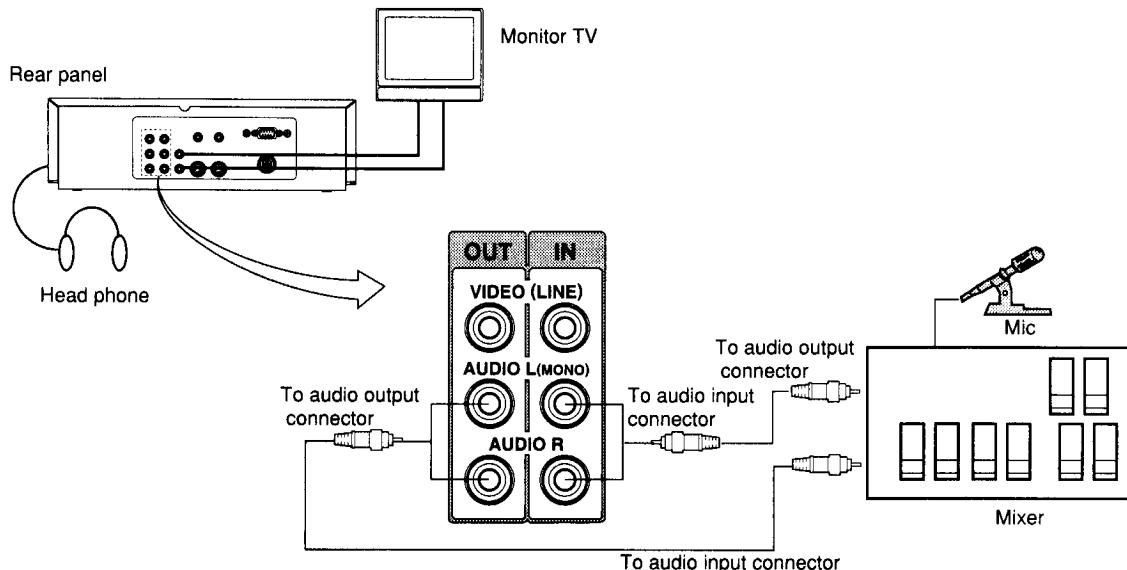
Audio dubbing is not possible with the tape recorded in the EP mode or the tape without its safety tab.

With Menu Switch No. 213 A.DUB SELECT set to Hi-Fi PB, the original Hi-Fi sound can be dubbed while being played back. (See page 24)

RECORDING

SELF AUDIO DUBBING

During playback, the Hi-Fi soundtrack is recorded onto the normal audio track on the same tape. Audio editing options include dubbing the Hi-Fi audio, or adding narration, sound effects, etc. When this function is used for audio editing only, there is no degradation in video quality.



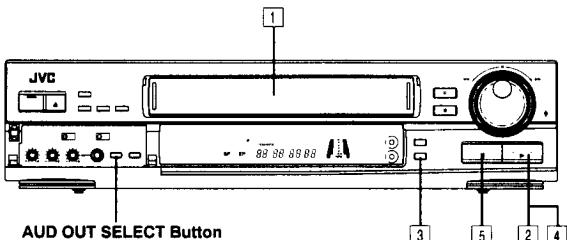
Preparation

■ Menu Switch Setting

Set No. 213 A.DUB SELECT to Hi-Fi PB.

- Audio dubbing is performed while Hi-Fi audio sound is played back.

■ Select normal audio with the [AUDIO OUT SELECT] button. If this is not selected, howling may occur.



Operation

- 1 Load a cassette with safety tab in place. (If the tab has been removed, cover the hole with adhesive tape.)
- 2 Search for the self audio dubbing IN point.
 - Use the JOG/SHUTTLE controls to locate the IN point.
 - Engage the Still mode at the IN point.

- * Hi-Fi audio sound is not output in Search and Slow-Motion Playback modes.
- * You cannot adjust the Hi-Fi sound levels because you are recording on the normal audio track.

Notes:

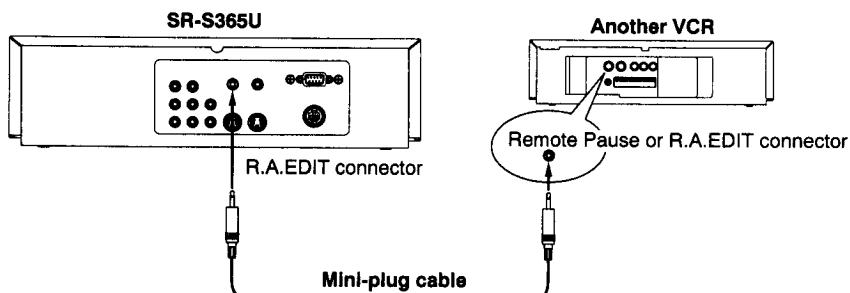
- Self audio dubbing is not possible on cassettes with no safety tab.
- Self audio dubbing is not possible with a tape recorded in the EP mode.

- 3 Press A. DUB.
→ The VCR enters the Audio-Dub Pause mode.
- 4 Press PLAY to start self audio dubbing.
→ The Audio Dubbing icon blinks on the display.
 - Hi-Fi sound is played back and recorded onto the normal audio track.
- 5 Press STOP to stop self audio dubbing.

SPECIAL FUNCTIONS

RANDOM ASSEMBLE EDITING (R.A.EDIT)

The SR-S365U is provided with an R.A.EDIT connector on its rear panel that allows quick, easy assemble editing of up to 8 scenes at a time when connected to the Remote Pause or R.A.EDIT connector of another VCR. Ideal for rough cuts, Random Assemble Editing enables you to preset up to 8 scenes in any order and automatically edit them in the desired sequence.



Connections

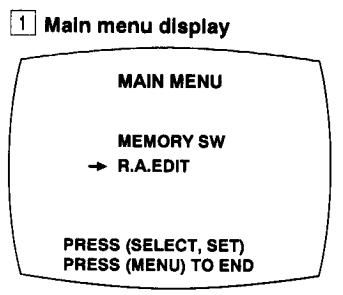
- Connect the video and audio input/output connectors of the two VCRs.
- Connect the SR-S365U's R.A.EDIT connector to the other VCR's Remote Pause or R.A.EDIT connector.

The setting procedure depends on whether the SR-S365U is used as a player or a recorder. Only one program can be set when it's used as a recorder.

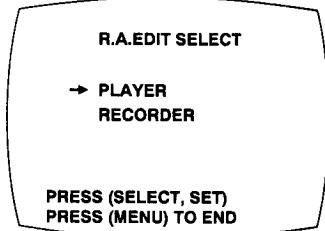
Note:

When Random Assemble Editing programs have been set on both the player and recorder, Random Assemble Editing cannot be executed.

When Using the SR-S365U As A Player

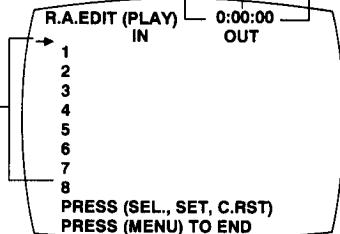


2 R.A.EDIT select display



3 R.A.EDIT setting display

Counter value (Hour Minute Second)



Enter the Random Assembly Edit Mode

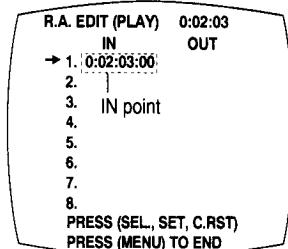
- 1 Press MENU to call up the main menu display
→ The main menu display appears on-screen.
- 2 Press SELECT to move the cursor to R.A.EDIT, then press SET.
→ The R.A.EDIT select display appears on-screen.
- 3 Select Player.
 - If the cursor is on PLAYER, press SET. If not, press SELECT to move the cursor to PLAYER, then press SET.
→ The SR-S365U is selected as the Player and the R.A. EDIT program setting display appears.
 - The cursor will be on Program No. 1 when the display is first called up.

Program No.—

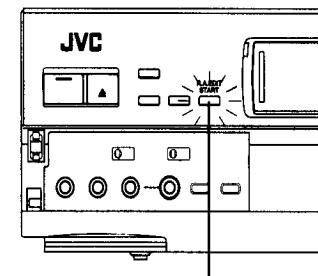
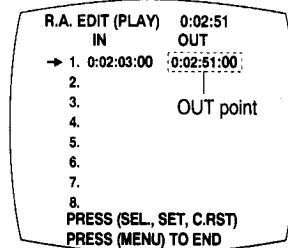
SPECIAL FUNCTIONS

RANDOM ASSEMBLE EDITING

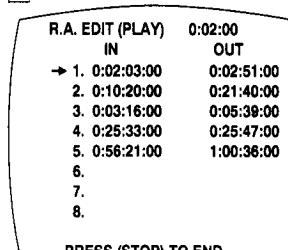
4 IN point setting



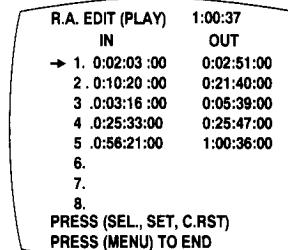
7 OUT point setting



10



11



Program Setting

- 4 Search for the edit IN point.
 - Use the JOG/SHUTTLE controls to locate the IN point.
- 5 Engage the Still mode at the IN point.
 - Press the [PAUSE/STILL] button.
- 6 Press SET.
 - The IN point counter value data is entered in the IN point data for Program No. 1.
- 7 Search for the edit OUT point.
 - Use the JOG/SHUTTLE controls to locate the OUT point.
- 8 Press SET
 - The OUT point counter value data is entered in the OUT point data for Program No. 1.
 - The cursor moves to the next Program.
- 9 Repeat steps 4 through 8 to set additional programs.

* Do not set the edit IN and OUT points at the beginning and end of the tape. The IN point for the first edit should be at least five seconds from the beginning of the tape.
* Editing cannot be executed if the OUT point is placed before the IN point.
* Set both the edit IN and OUT points. If either one is not set, editing does not take place.

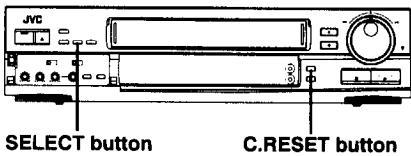
Execute Random Assembly Editing

- Let the recorder stand-by in Record Pause mode.
- 10 Press R.A.EDIT START to start random assemble editing.
 - The programmed scenes are automatically recorded in the program sequence.
 - The R.A.EDIT setting display is shown while the IN point is searched. The program indicated by the cursor is being searched.
 - The R.A.EDIT display disappears when editing starts.
- 11 When all scenes have been recorded
 - The SR-365U enters the Still mode and the R.A.EDIT setting display appears on-screen. The cursor is moved to the first Program No.
 - The recorder enters the Record Pause mode.
- 12 To continue Random Assemble Editing, follow steps 4 through 10.
- 13 To end Random Assemble Editing, press STOP.
 - The Random Assemble Editing mode is canceled.
- 14 • To restore the normal display, press MENU.
 - Then press the player's and recorder's STOP buttons.

Edit start timing can be fine-adjusted with Menu Switch No. 353 R.A.EDIT ADJUST.
Adjusting the timing in the minus direction advances the recorder's edit timing. Adjusting it in the plus direction, delays it.

SPECIAL FUNCTIONS

RANDOM ASSEMBLE EDITING

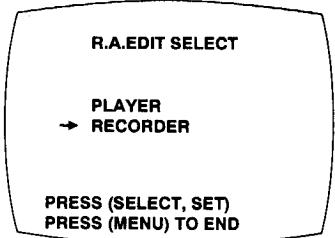


Note:
It is not possible to cancel the IN point only.

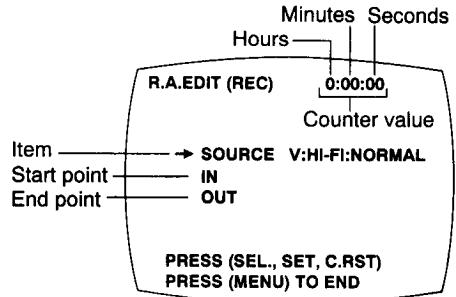
When Using the SR-S365U As A Recorder

One program can be insert-edited when using the SR-S365U as a recorder.

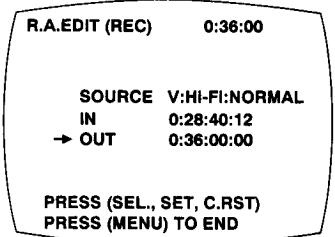
2 R.A.EDIT select display



3 Recorder program setting display



4 5 6 Program setting



Edit start timing can be fine-adjusted with Menu Switch 353 R.A.EDIT ADJUST.

Adjusting the timing in the minus direction advances the recorder's edit timing. Adjusting it in the plus direction, delays it.

Program Correction

Set data can be canceled during program setting.

- 1 Press SELECT to move the cursor to the Program No. you want to correct.
- 2 Press C.RESET to cancel the OUT point data.
 - To cancel IN point data as well, press C.RESET again.
 - All data is cleared when the power is turned off.
- 3 Re-enter the program data following the procedures described above.

Select Recorder In R.A.EDIT Mode

- 1 Press MENU button to call up the main menu display on-screen.
- 2 Press SELECT button to move the cursor to R.A.EDIT.
→ The R.A.EDIT select display appears on-screen.
- 3 Press SELECT to move the cursor to RECORDER, then press SET.
→ The recorder program setting display appears.

Program Setting

- 4 Select insert items.
Press SELECT to move the cursor to SOURCE, then press SET to select the insert item. Insert items can be selected from the following:
 - V : Hi-Fi : NORMAL Inserts Video + Hi-Fi sound + Normal sound
 - VIDEO Hi-Fi Inserts Video + Hi-Fi sound
 - NORMAL Inserts Normal sound* When menu switch No. 200 Hi-Fi AUDIO REC is OFF, the Hi-Fi indication for SOURCE is not shown on the display.
- 5 Set the edit IN point
 - Press SELECT button to move the cursor to IN.
 - Use the Jog/Shuttle controls to locate the Insert IN point and engage the Still mode.
 - Press SET. The insert IN point is entered in the IN point data.
- 6 Repeat this procedure to insert the Insert OUT point.

Execute Insert Editing

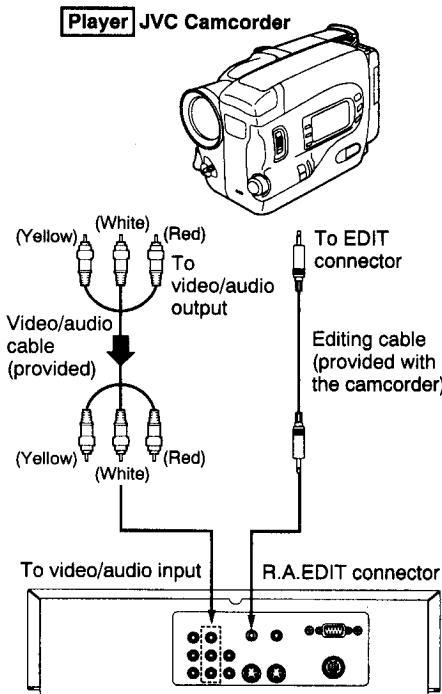
- Engage the Still mode for the player VCR.
- 7 Press R.A.EDIT START.
→ Insert editing starts.
 - Recording stops at the insert OUT point.
 - The tape plays back for about 1 second, then enters the Still mode.

To correct the Insert settings

- Select the item you want to correct on the program setting display with the SELECT button and press C.RESET button. The selected item is canceled.
- All data is cleared when the power is turned off.
- Re-enter the data as described above.

SPECIAL FUNCTIONS

RECORDING FROM A JVC CAMCORDER



Note:

When using the SR-S365U as a recorder, Random assemble editing is not possible with SR-S365U's R.A.Edit program setting.

Recording start/stop on the SR-S365U can be controlled from the camcorder during dubbing.

Connections

- Connect the R.A.EDIT connector on the SR-S365U's rear panel to the camcorder's EDIT connector.
- Connect the camcorder's VIDEO/AUDIO OUT connector to the SR-S365U's VIDEO/AUDIO IN.

Operation

On the SR-S365U 1 Press REC and PAUSE together to engage the Record Pause mode.

On the Camcorder 2 Locate the start of the scene you want to dub and press the Edit Start button.
→ The SR-S365U automatically starts recording and the camcorder starts playback. When the selected scene has been recorded, the camcorder enters the Still mode and the SR-S365U enters the Record Pause mode.

When you've finished dubbing, stop both the SR-S365U and the camcorder.

SCENE FINDER FUNCTION (with RM-G800U)

When the optional RM-G800U editor is connected, the SR-365U can quickly search the transitions between scenes on tapes shot with the JVC Professional GY-X2 or GY-X3 Camcorder (Scene Finder facility).

- Scene Finder operation is executed using the RM-G800U.
 - During forward search, press FF while pressing SHIFT to find the beginning of the next scene.
 - During reverse search, press REW while pressing SHIFT to find the beginning of the current scene.

See the "Additional Functions" sheet attached to the RM-G800U instruction manual.

Notes:

- RM-G800U models which support the Scene Finder facility are indicated by the letters SF or X right next to the model name on the packing case and on the serial number plate on the bottom of the unit.
- The Scene Finder facility is disabled on models without the SF or X mark.

AUTOMATIC EDITING WITH THE RM-G800U (OPTION)

With the optional editing controller RM-G800U, you can configure a simple editing system for CTL time code-based automatic assemble and insert editing.

During editing, the recorder VCR always records in the SP mode. Editing in the EP mode is not possible.

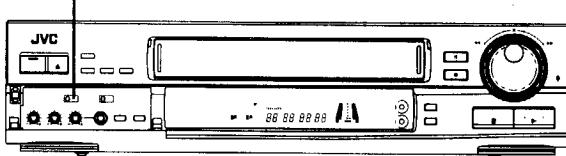
Preparations

1 Connect all necessary components.

See page 10 "Connections"

2 Make necessary settings on connected units.

RS-232C/LOCAL/REMOTE Switch



Set the Player's RS232C/LOCAL/REMOTE switch to REMOTE.

Set the Player's menu switch No.500 ON SCREEN DISPLAY to OFF.

* See page 18 for other settings.

Set the Recorder's RS232C/LOCAL/REMOTE to REMOTE.

* See page 21 for other settings.

Notes when using the RM-G800U

Some of the RM-G800U's functions do not apply with the SR-S365U.

The following button, operation and setting are not applicable.

1. PREVIEW button

No Preview mode available.(When using the SR-S365U as a recorder.)

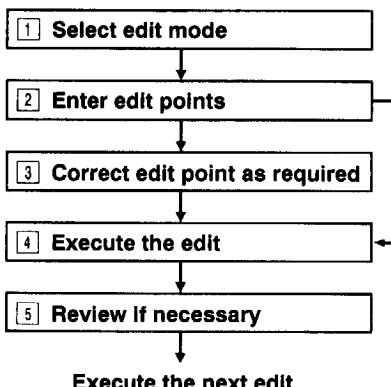
2. Since the SR-S365U's normal audio is monaural, audio tracks are not selectable between audio-1 and audio-2 in insert editing. Normal audio insert editing is engaged by pressing either the AUD-1 or AUD-2 button.

3. The following menu setting of the RM-G800U are not available.

Menu No.	Content	SR-S365U operation
00	PREROLL TIME	Preroll time will be fixed to 5 seconds.
03	BUMP ON/OFF	No bump operation.
04	BUMP RETRY ACCURACY	No bump operation.
05	EDITNG ACCURACY	Cannot be set. Editing accuracy is +/- 5 frames.
06	EDIT DELAY	Cannot be set.
11	FRAME GRAB FUNCTION	Not operative.

Operating flowchart

Editing procedures can be summarized as follows:



1 Select edit mode.

Select either assemble editing or insert editing.

2 Enter edit points.

Enter both edit-in and -out points.

3 Correct edit points as required.

Inserted edit points can be corrected.

4 Execute the edit.

After entering edit points, perform editing. This is referred to as "Executing an edit".

5 Review if necessary.

After executing an edit, you may want to rewind and check the quality of the transition between edit points. This is referred to as "Review".

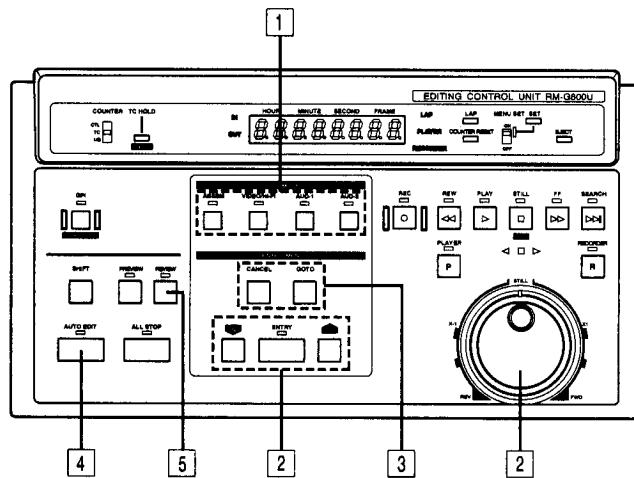
Proceed with editing by repeating the procedures above using the RM-G800U.

Note:

Use only RM-G800U models with an "X" next to the model name on the packing case and on the serial number plate on the bottom of the unit. If there is no "X" mark, the controller does not support CTL time code editing.

AUTOMATIC EDITING WITH THE RM-G800U (OPTION)

Basic Editing Procedure



1 Select edit mode.

ASSEM To perform assemble editing, press ASSEM.



- VIDEO/HI-FI To perform insert editing, select the track you're going to replace by pressing either VIDEO/Hi-Fi, AUD-1 or AUD-2.
- VIDEO/Hi-Fi:
Prerecorded video and Hi-Fi audio track is replaced by new material.
 - AUD-1 or AUD-2:
Prerecorded normal audio track (monaural) is replaced by new material.



AUD-1

or

AUD-2

2 Enter edit points.

Set edit-in point for each VCR (Player/Recorder) and set edit-out point for either Feeder or Recorder.

PLAYER Press "PLAYER" to set data for Player and press "RECORDER" to set data for Recorder. Locate desired edit point using JOG/SHUTTLE controls.



RECORDER



ENTRY



To enter edit-in point, press ENTRY while pressing IN.



OUT

To enter edit-out point, press ENTRY while pressing OUT.

3 Correct edit points if required

The new data automatically cancels the previous data.

GOTO To review the picture at an edit point, press GOTO while pressing IN or OUT.

The VCR runs the tape to the specified edit point and enters the Still mode.

CANCEL To cancel an edit point without entering a new edit point, press CANCEL while pressing IN or OUT.

To finely adjust an edit point, turn the JOG dial while pressing IN or OUT.

4 Execute the edit.

AUTO EDIT Press AUTO EDIT to start automatic editing.

5 Review if necessary.

REVIEW Before you enter new edit points for next edit, press REVIEW.

Recorder automatically plays back the last executed.

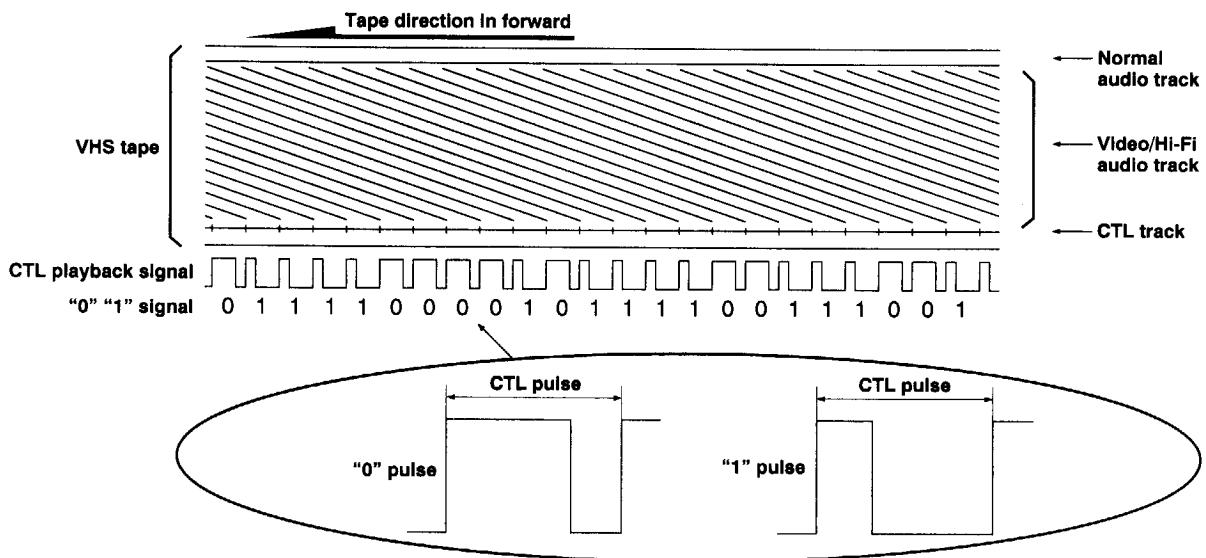
To stop editing while editing is in progress:

Press ALL STOP. Editing stops at the point where the button is pressed.

For details about editing using the RM-G800U, refer to the RM-G800U's instruction manual.

CTL TIME CODE

While professional time code systems such as VITC or LTC require special time code equipment, JVC's CTL Time Code takes advantage of the "control track" automatically recorded on the tape, making it the easiest and most flexible time code system available. The CTL time code data consists of 0 and 1 signals created by changing the duty ratio of the CTL signal on the tape. CTL time code signals are up to 2 seconds long and can contain both time data and user data. Time data represents the 6-digit temporal information of hours, minutes and seconds, while user data is in the form of hexadecimal 4-digit data. Frames between time code signals are interpolated with CTL pulses to enable frame-by-frame editing and search.



CTL Time Code Recording

- The interpolation mark (*) on-screen disappears during CTL time code recording.
- Recording on the drop-frame recorded tape in the REGENE mode will result in drop-frame recording.

Time data recorded from the beginning of the tape starts at 00:00:00:00.

Can be controlled via either the SR-S365U or the RM-G800U.

- 1 Set the RS-232C/LOCAL/REMOTE switch on the SR-S365U front panel to LOCAL to control time code recording with the SR-S365U. Set it to REMOTE to use the RM-G800U.
- 2 Rewind the tape to the beginning.
- 3 Press PLAY while pressing REC to start recording.
→ Time code data recording begins at 00:00:00:00, and user bits data is recorded as 0000.

Notes:

- Be sure tape is at the beginning before entering the Record mode. Time code recording does not take place if the tape is not fully rewound to the beginning.
- If tape is paused or stopped during recording, CTL time code data and user data will not be recorded when recording resumes.
- CTL time code is not recorded in the EP mode.

- If time code data has been preset, time code recording starts at the preset data. For more information on time code presetting, refer to page 32.

CTL TIME CODE

CTL TIME CODE ASSEMBLY EDITING/TC INSERT

CTL time code assemble/insert editing is controlled with the RM-G800U.

- Set the RS-232C/LOCAL/REMOTE switch on the SR-S365U front panel to REMOTE.
- When executing CTL time code assemble/insert editing from the start of the tape, run the tape for more than 5 seconds before executing editing.

Editing on a tape with CTL time code recorded (REGENE mode):

- 1 Set COUNTER switch to TC and play the tape. Make sure that the interpolation mark (*) on-screen is off.
- 2 Execute CTL time code assemble or insert editing.
 - To set the CTL time code insert mode, press AUD-2 while pressing SHIFT. Then press AUTO EDIT button, and insert operation starts. To end editing, press ALL STOP.
 - * "Editing Procedure" is described in Section 6-2 and 6-4 of the RM-G800U instruction manual.
 - Time code is recorded following the time code already recorded.
 - The same user data as already recorded is recorded.

Recording preset time code data:

- 1 Set the preset data.
 - * See page 17 of the RM-G800U Instruction Manual for the setting procedure.
- 2 Execute assemble editing or CTL time code insert.
 - Time code recording begins with preset data.
 - User bits data is recorded as preset data.

Note:

If either time code data or user bits data is not preset, non-preset data is recorded in the REGENE mode.

CTL TIME CODE PRESET

Performed with the RM-G800U.

Preset

- Time code and user bits can be preset independently by setting COUNTER switch to TC or UB.
- 1 Press TC HOLD button to enter the preset mode.
 - 2 Set the desired value with the Jog dial and SHIFT button.
 - 3 Press TC HOLD while pressing SHIFT to set the data.

Checking the preset data

- Press REC when the VCR is in the Stop or Cassette Eject mode.
 - The set data is displayed on the counter.

Cancelling the preset mode

The preset mode can be canceled and the preset data can be deleted by doing either of the following.

- Change COUNTER switch to CTL.
- Execute recording, assemble or insert editing.

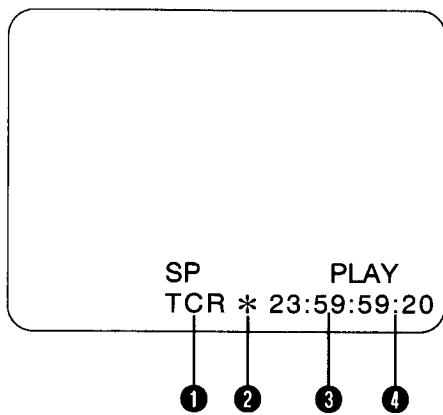
CTL TIME CODE

CTL TIME CODE PLAYBACK

Can be controlled with the SR-S36U or the RM-G800U.

- Set COUNTER switch to TC or UB and play back the tape.
(Set the SR-S365U's Menu Switch No. 352 COUNTER MODE to TCR.).
TC : Plays time code.
UB : Plays user bits data (for RM-G800U only).
- Available speed for time code playback: From 1X to 11X for both FWD search and REV search.
- Interpolation mode
Wherever there is a CTL time code read error during playback, the data is interpolated with the control signal. This mode is indicated by the interpolation mark (*) displayed on-screen, except when:
 - time data is read every 2 seconds, with the frame between them being interpolated with CTL;
 - only one CTL time signal is dropped (for 2 seconds) during continuous reading

ON-SCREEN DISPLAY



① CTL time code counter mode

TCR : CTL time code reader data
UBR : CTL users bit reader data

Displayed during recording and playback.

* UBR displayed only for RM-G800U

TCG : CTL time code generator data

UBG : CTL users bit generator data

Displayed for preset reviewing only.

* Only for RM-G800U

② Interpolation display

In playback : Displays (*) in interpolation mode.

In recording : No display during time code recording.

③ Counter display

Time data : 24-hour mode. 8 digits for hours, minutes, seconds and frames.

Users data : Hexadecimal 4-digit data. Only the lower 4 digits are valid on the 8-digit display.

④ Drop frame display

Displays [.] for Drop Frame mode and [:] for Non-Drop Frame mode in both Play and Record modes.

CTL TIME CODE

NOTES AND PRECAUTIONS

1 Recording or playback for less than six seconds

Since one packet of CTL time code data lasts 2 seconds, it takes 6 seconds to read the code. Correct reading is therefore not possible when playing back a tape for less than 6 seconds or when recording for less than 6 seconds.

2 CTL time code cannot be written onto an EP-recorded tape

During EP recording, CTL time code is not recorded. CTL time code cannot be inserted on an EP-recorded tape.

3 Bit drop at the edit splicing point

Up to 8 bits of data may be dropped at the splicing point in assemble editing or time code insert editing. However, this does not affect the time data which remains continuous across the editing point.

4 Discontinuous data on the tape

Any discontinuous time data on the tape may lead to an error during editing or search. Before using a tape with discontinuous time data, insert continuous time data.

5 Editing from the start of the tape

When executing time code editing from the beginning of the tape, run the tape long enough to stabilize time code reading before starting editing.

6 Drop frame display

Even if a tape has been recorded in the Non-Drop Frame mode, the drop frame display may appear for about 2 seconds at the edit splicing point.

7 Drop Frame Mode preset

The Drop Frame Mode is compatible only with writing in the REGENE mode and reading, but not with writing the drop frame mode preset.

8 User data setting inhibited

The following character strings written on the user data may lead to an error during readout.

0FF8	1FF0	2FF8	3FE*	4FF8	5FF0	6FF8	7FC*	8FF8	9FF0	AFF8	BFE*	CFF8	DFF0	EFF8	*3FE
0FF9	1FF1	2FF9		4FF9	5FF1	6FF9	7FD*	8FF9	9FF1	AFF9		CFF9	DFF1	EFF9	*7FC
0FFA	1FF2	2FFA		4FFA	5FF2	6FFA		8FFA	9FF2	AFFA		CFFA	DFF2	EFFA	*7FD
0FFB	1FF3	2FFB		4FFB	5FF3	6FFB		8FFB	9FF3	AFFB		CFFB	DFF3	EFFB	*BFE
	1FF4			5FF4				9FF4				DFF4			
	1FF5			5FF5				9FF5				DFF5			
	1FF6			5FF6				9FF6				DFF6			
	1FF7			5FF7				9FF7				DFF7			

*Hexadecimal value specified.

9 CTL time code may not be correctly recorded when assemble editing or TC insert editing lasts for less than 6 seconds. In that case, execute TC Insert editing again from the beginning to the end of the tape.

OTHERS

RS-232C INTERFACE

This section provides information for programmers on controlling the SR-S365U via the RS-232C interface.

Precautions in Programming

Communications with the VCR via the RS-232C serial interface are conducted by means of byte-by-byte data transmission and reception.

When sending commands to the VCR, wait for a period of 5 msec after receiving a return command from the VCR before sending the next command (data). If the interval is shorter than that, there will be no way to clear any communications error other than turning the VCR power off.

Clearing a Communication Error

ERROR (02h) is returned from the VCR when any error occurs during transmission or reception via the RS-232C serial interface. If this happens, clear the communications error by sending CLEAR (56h) or CLEAR ERROR (41h).

Commands are classified as follows:

Communications Commands	35
Operate Commands	35
Play and Special Play Commands	36
Recording Commands	37
Cue-up and Repeat Commands	37
Status Sense Commands	38
Memory Switch-related Commands	40
Edit Operation Commands	42
Time Code-related Commands	43

Preparation

Set the RS-232C/LOCAL/REMOTE select switch on the VCR to "RS-232C".

Communication commands

ACK (0Ah)

Acknowledges that a defined command has been received.

NAK (0Bh)

Returned when an undefined or unavailable command is received.

ERROR (02h)

Returned when a command is sent out of context and cannot be accepted.

- To clear the error condition, input CLEAR ERROR (41h) or CLEAR (56h).
- To cancel only the last input numeric data, input CLEAR ERROR (41h).
- To cancel all of the previously entered command, input CLEAR (56h).

CLEAR (56h)

Cancels the current mode.

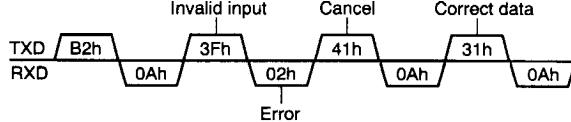
Clears communications error condition.

- When this command is sent, the VCR enters the stop mode. Turn the VCR's main power on again if the error condition cannot be cleared when this command is sent.

CLEAR ERROR (41h)

Deletes the last data input and clears the communications error condition.

- Example: Point specified with CUE UP WITH DATA (B2h)
Invalid data has been input so the data is canceled to allow input to continue.



- Send CLEAR if the error condition cannot be cleared when this command is sent several times in a row.

JVC TABLE 1 ON/OFF (F6h)/(F7h)

Selects which of the two tables on pages 43 and 44 is active.

- When one table is active, the other tables' cursor cannot be used.

Operate Commands

FF/REW (ABh)/(ACh)

Engages the FF or rewind mode.

- When this command is sent during playback, the FWD or REV mode is engaged.

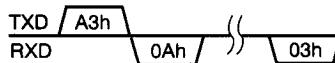
STOP (3Fh)

Engages the stop mode.

EJECT (A3h)

Ejects the cassette.

- Once the cassette has been ejected, CASSETTE OUT (03h) is returned.



CASSETTE OUT (03h)

Returned once the cassette has been ejected.

- An improperly processed return command may cause problems with the program.

OTHERS

FULL EE ON/OFF (C4h)/(C5h)

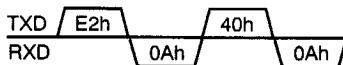
Switches the FULL EE mode on and off.

- All modes are set to FULL EE until FULL EE OFF (C5h) is sent. Use to monitor the video or audio being input to the VCR during playback.

COUNTER RESET (E2h)

Resets the VCR's CTL counter to "0".

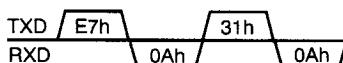
- After sending E2h, send 40h.



TIMER MODE SELECT (E7h)

Selects the reference signal for the tape counter.

- After sending this command, send a 1-byte numeric data packet.



- The numeric data corresponding to each timer mode are shown below.

Timer mode	Numeric data
CTL-TC	31h
CTL	32h
CTL-TC UB	34h

OPERATE ON/OFF (7Bh)/(7Ch)

Switches the VCR on and off.

- Effective with JVC TABLE1 ON.

CURRENT CTL SENSE (D9h)

CURRENT LTC/LTC UB SENSE (D8h)/(DCh)

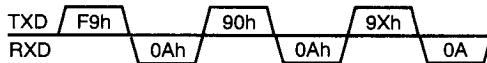
Checks the counter information for the current tape.

- Set the current timer to the same mode as the type of counter information desired and send the command.
- When the timer mode is set to CTL, “-” is shown if 38h is the first byte of the returned data.
- Time code user bits from A to F are returned with ASCII code capital letters (41h to 46h).
- See page 44 for instructions on how to represent time data.

TUNER STATUS (F9h)

Checks output sound switching and setting.

- Send the data after sending this command.



- Data and settings that can be sent after this command are shown below.

+90h + 94ht+

30h : Switches from Hi-Fi L → HiFi R → HiFi L/R → HiFi L . . .
 31h : Switches to HiFi L.
 32h : Switches to HiFi R.
 33h : Switches to HiFi L/R (stereo).

+90h + 95ht+

30h : Switches from Hi-Fi → Normal → HiFi + Normal (mix) → HiFi . . .
 31h : Switches to HiFi sound.
 32h : Switches to normal sound.
 33h : Switches to HiFi + Normal (mix).

+90h + 9A

3-byte data is returned. The following settings can be checked. Setting contents are determined by the characteristics of the bits included in the 2nd byte returned.
 2nd byte

Bit No.	Contents when the bit is 1.
7 - 4	Not available.
3	Normal sound is selected.
2	HiFi sound is selected.
1	HiFi Rch is selected.
0	HiFi Lch is selected.

Play and Special Play commands

PLAY (3Ah)

Engages the play mode.

STILL (4Fh)

Engages the still mode.

- Send the command in the play mode.

FWD/REV STILL (3Dh)/(4Dh)

Specifies the forward or reverse direction to engage the still picture reproduction mode.

- Effective with BASIC TABLE ON (JVC TABLE 1 OFF).

FORWARD SHUTTLE (B5h)

REVERSE SHUTTLE (B6h)

Engages the variable-speed playback mode at the speed specified.

- The numeric data command must be sent after this command has been sent.
- For details on numeric data and speed data, refer to table below.

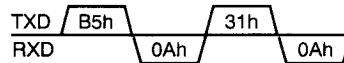
Speed	Numerical value commands
0 (STILL)	30h
1/30	31h
1/18	32h
1/6	33h or 34h
1	35h
2, -3*	36h
5	37h
7	38h
11	39h

* Forward direction: +2x

Reverse direction: -3x

Example

Plays back in the forward direction at 1/30 normal speed.



FORWARD FIELD STEP (ADh)

REVERSE FIELD STEP (AEh)

Advances one frame (approx.) in the forward or reverse direction.

- Send in the still mode.

X5 / X-5 (3Bh)/(4Bh)

X1/6 / X-1/6 (3Ch)/(4Ch)

X7 / X-7 (3Eh)/(4Eh)

X-1 (4Ah)

Engages the variable-speed playback mode. Speed is determined by the command transmitted.

- Effective with BASIC TABLE ON (JVC TABLE 1 OFF).

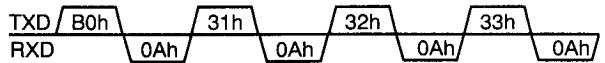
VISS FWD (B0h)

VISS REV (AEh)

Cue the n-th VISS point from the current tape position. Specify three-byte data. You do not need to input ENTER(40h) when you input full three-byte data. Also used to detect the point where the user bits are switched.

Example

Cue the 123 VISS point in the forward direction.



OTHERS

Recording Commands

REC/DUB REQUEST (FAh)

Prepares the VCR for recording. Must be sent prior to sending any recording-related commands.

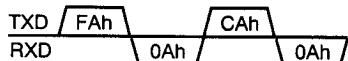
- Send when engaging the recording mode.



REC (CAh)

Engages the record mode.

- Send REC/DUB REQUEST (FAh), before sending this command.

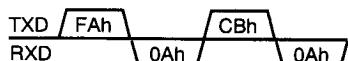


- If the cassette's safety tab has been removed, NAK (0Bh) is returned.

REC PAUSE (CBh)

Temporarily stops recording.

- Send REC/DUB REQUEST (FAh), before sending this command.

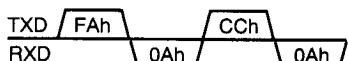


- If the cassette's safety tab has been removed, NAK (0Bh) is returned.

AUD DUB (CCh)

Engages the audio dubbing mode.

- Send this command after engaging the Audio Dubbing mode.

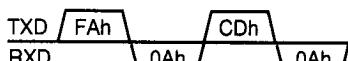


- If the cassette's safety tab has been removed or the tape is recorded in the EP mode, NAK (0Bh) is returned.

AUD DUB PAUSE (CDh)

Temporarily stops audio dubbing.

- In the Still mode, send REC/DUB REQUEST (FAh) before sending this command.



- If the cassette's safety tab has been removed or the tape is recorded in the EP mode, NAK (0Bh) is returned.

Cue-up and Repeat commands

MEMORY (5Ah)

Designates a specified tape position for cueing with MEMORY SEARCH (5Bh).

MEMORY SEARCH (5Bh)

Searches the point on the tape specified beforehand with MEMORY (5Ah) and engages the Still mode.

- Once the tape has been cued, COMPLETION (01h) is returned.
- If the specified position cannot be located, NOT TARGET (05h) is returned.
- If the timer mode is changed after specifying the position with MEMORY (5Ah), NAK (0Bh) is returned.

IN/OUT ENTRY (50h)/(51h)

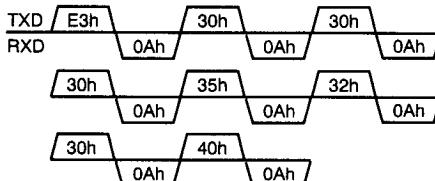
Designates specified tape positions as IN/OUT points.

- Effective with BASIC TABLE ON (JVC TABLE 1 OFF).
- IN/OUT points must be specified in the same timer mode.

IN/OUT DATA PRESET (E3h)/(E4h)

Designates specified tape positions as IN/OUT points.

- When using CTL time code, specify tape positions within the range from 00:00:00:00 to 23:59:59:29. When using the CTL counter, specify tape positions in the range up to -9:59:59:29 in the minus direction.
- Effective with BASIC TABLE ON (JVC TABLE 1 OFF).
- See page 44 for instructions on how to represent time data. Send numeric data after sending this command.
- Example: Specifying the position of 5 minutes 20 seconds as the edit-in point



- If the frame number is not specified (as in the example), numeric input must be followed by the ENTER (40h) command.
- When the time code is set to CTL, “-” is shown if 38h is the first byte of the returned data.
- It is not necessary to send ENTER (40h) if complete numeric data is input (8 digits).
- When invalid data (e.g. 90 minutes, 45 frames) is input, NAK (0Bh) is returned and the data is not registered.

IN/OUT DATA SENSE (DAh)/(DBh)

Checks data at the preset edit-in and edit-out points.

- Effective with BASIC TABLE ON (JVC TABLE 1 OFF).
- An 8-byte data packet is returned as time data when the command is sent. If no IN or OUT point is entered, NAK (0Bh) is returned.
- See page 44 for instructions on how to represent time data.

IN/OUT FLAG RESET (52h)/(53h)

Cancels data set with IN/OUT DATA PRESET or IN/OUT ENTRY.

- Effective with BASIC TABLE ON (JVC TABLE 1 OFF).

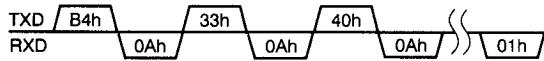
REPEAT (44h)/(B4h)

Repeatedly plays back the section of tape specified with IN/OUT DATA PRESET (E3h)/(E4h) or IN/OUT ENTRY (50h)/(51h).

- Effective with BASIC TABLE ON (JVC TABLE 1 OFF).

Example:

To repeat playback three times



- The number of repetitions can be specified up to a maximum of 99 times.
- When playback has been completed the specified number of times, COMPLETION (01h) is returned.
- Sending ENTER (40h) instead of specifying the number of repetitions allows unlimited repetition of playback.
- If the IN point cannot be located, the beginning of the tape is automatically selected as the IN point. If the OUT point cannot be located, the end of the tape is automatically selected as the OUT point.
- To stop Repeat Play, send CLEAR (56h).

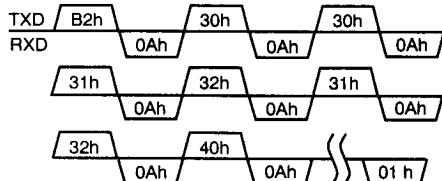
OTHERS

CUE UP WITH DATA (B2h/42h)

Cues the tape up at a specified tape position.

Example:

To cue up the tape at 12 minutes, 12 seconds



See page 44 for instructions on how to represent time data.

- If complete numeric data is input (8 digits), the ENTER command (40h) is not required.
- If the frame number is not specified (as in the example), ENTER (40h) must be sent after inputting the data. In this case, data begins from the most significant digit (hour).
- When the tape has been cued up, COMPLETION (01h) is returned. If the specified position cannot be located, NOT TARGET (05h) is returned.
- This command is effective for both BASIC TABLE and JVC TABLE 1. There is some difference in after-cueing operation of the depending on which table is valid.

With BASIC TABLE valid:

STILL mode entered at the time of cueing

With JVC TABLE 1 valid:

PLAY mode beginning with cueing

- When invalid data (e.g. 90 minutes, 45 frames) is input, NAK (0Bh) is returned.
- When the time code is set to CTL, "-" is shown if 38h is the first byte of the returned data.
- The possible range is up to -9H59M59S29F for the CTL minus indication. For the CTL time code indication, it is from 00H00M00S00F to 23H59M59S29F.

COMPLETION (01h)

Returned on completion of REPEAT, MEMORY SEARCH or CUE UP WITH DATA operations.

- An improperly processed return command may cause problems with the program.

NOT TARGET (05h)

Returned when a specified position cannot be detected in MEMORY SEARCH or CUE UP WITH DATA etc.

- An improperly processed return command may cause problems with the program.

ENTER (40h)

Indicates to the VCR that input of numeric data following commands such as REPEAT, CUE UP WITH DATA or IN/OUT DATA PRESET is complete.

DATA "0" – "9" (30h) – (39h)

Numeric data is sent.

- Send after commands such as REPEAT, CUE UP WITH DATA or IN/OUT DATA PRESET.

(3Ah) – (3Fh)

Hexadecimal A to F are sent.

- Send after LTC UB PRESET (E1h).

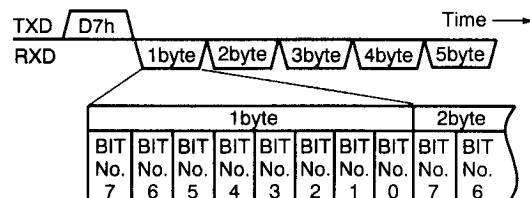
Status sense commands

A number of commands are available which allow you to check VCR settings and operations via RS-232C.

In this example, the STATUS SENSE command is used.

When STATUS SENSE (D7h) is sent, a 5-byte data packet is returned. VCR status can be determined by the bit assignment of each bit returned.

How the serial data are returned



Returned sequentially from the most significant (BIT No. 7) to the least significant bits.

To confirm that the VCR is set to the record mode, send STATUS SENSE (D7h).

Check the first bit of the fourth byte of the returned 5-byte data packet. If this bit is 1, the VCR is in the record mode.

The fourth byte

Bit No.	Status	Contents when the bit is 1
7	PLAY MODE	Playback*
6	FF MODE	Fast-forward
5	REW MODE	Rewind
4	STOP MODE	Stop
3	STANDBY MODE	Stop
2	EJECT	The cassette is being ejected.
1	REC MODE	Recording
0	A DUB MODE	In post-recording

* In the STILL, REC, ASSEMBLE, INSERT and A.DUB modes, this bit is also "1".

For details on the contents assigned to other bytes and bits, see below.

STATUS SENSE (D7h)

Requests status information from the VCR. A 5-byte data packet is returned. VCR status can be confirmed by checking the contents of the bits in each of the returned bytes. Bit assignments are shown below.

First byte

No.	Status	Bit	Contents when the bit is 1
7	Always 1		
6	Always 0		
5	SHORT FF/REW		After detecting the beginning and end of the tape, the VCR enters the SHORT FF or SHORT REW mode.
4	REC INHIBIT		The loaded cassette does not have a protective tab.
3	CASSETTE OUT		No cassette is loaded.
2	SERVO LOCK		Always 1.
1	Not defined		
0	ERROR		An unacceptable command has been received. Any subsequent commands will have no effect. To clear this condition, send CLEAR ERROR (41h).

Second byte

No.	Status	Bit	Contents when the bit is 1
7	EE MODE		EE output for video output.
6	A-I EE MODE		EE output for audio 1 output.
5	VIDEO MUTE		Video signals are muted.
4	AUDIO MUTE		Audio signals are muted.
3	WARNING		Warns of a problem with the VCR.
2	DEW		Not available.
1	TAPE BEGIN		The beginning of the tape is detected.
0	TAPE END		The end of tape is detected.

OTHERS

Third byte

No.	Bit Status	Contents when the bit is 1	
7	TIMER PLAY ON	Not available.	
6	TIMER REC ON	Not available.	
5	COUNTER SEARCH	Not available.	
4	REPEAT	The VCR's repeat mode is set to on.*	
3	Not defined		
2	REPEAT MODE	In repeat	
1	SEARCH MODE	In search (CUE UP/MEMORY SEARCH)	
0	Not defined		

* For communications via the RS-232C, check to see if the bit is 0. If not, change the relevant setting to make it 0.

Fourth byte

No.	Bit Status	Contents when the bit is 1	
7	PLAY MODE	Playback*	
6	FF MODE	Fast forward	
5	REW MODE	Rewind	
4	STOP MODE	Stop	
3	STANDBY MODE	Stop	
2	EJECT	The cassette is being ejected.	
1	REC MODE	Record	
0	A DUB MODE	In post-recording mode	

* In the STILL, REC, ASSEMBLE, INSERT and A.DUB modes, this bit is also "1".

Fifth byte

No.	Bit Status	Contents when the bit is 1	
7	PAUSE	Pause	
6	L-PAUSE MODE	Long Pause (tape protection)	
5	SHUTTLE FWD	Forward Shuttle Search.	
4	SHUTTLE REV	Reverse Shuttle Search.	
3	SPEED CODE3	See the table below.	
2	SPEED CODE2	See the table below.	
1	SPEED CODE1	See the table below.	
0	SPEED CODE0	See the table below.	

Speed code and VCR's tape speed

VCR's operation speed	SPEED CODE				Hexadecimal data
	3	2	1	0	
STILL	0	0	0	0	0
x1/30	0	0	0	1	1
x1/18	0	0	1	0	2
x1/6	0	0	1	1	3
x1	0	1	0	1	5
x2, x-3*	0	1	1	0	6
x5	0	1	1	1	7
x7	1	0	0	0	8
x11	1	0	0	1	9
x15	1	0	1	0	A
x24 or more	1	0	1	1	B

* Forward direction: +2x

Reverse direction: -3x

JVC STATUS SENSE (DDh)

Contents

Requests status information from the VCR. A 4-byte data packet is returned. VCR status can be confirmed by checking the contents of the bits in each of the returned bytes. Bit assignments are shown below.

Transmission method

Refer to "Status Sense Commands" on page 38.

First byte

No.	Bit Status	Contents when the bit is 1	
7	Always 1		
6	Always 0		
5	EP	Recording or playback is being executed in the EP mode.	
4	S-VHS	The S-VHS mode is engaged and the S-VHS lamp is lit.	
3	Hi-Fi	The Hi-Fi mode is engaged and the Hi-Fi lamp is being lit.(In the playback mode.)	
2		The menu switch No.200 Hi-Fi AUDIO REC is set to ON.(In the REC or E-E mode.)	
1	JVC TABLE1	Not available.	
0	LOCAL	JVC TABLE1 is open.	
		LOCAL is selected on the remote switch.	

Second byte

No.	Bit Status	Contents when the bit is 1	
7	GENERATOR	Not available.	
6	UB	User bits are selected for the current timer.	
5	TC	TC is selected for the current timer.	
4	CTL	CTL is selected for the current timer.	
3	CTL interpolation	Missing parts of the time code are interpolated with CTL.	
2	DF	The drop frame mode is engaged.	
1	CTL-TC	CTL-TC is selected for the current timer.	
0	VITC	Not available.	

Third byte

No.	Bit Status	Contents when the bit is 1	
7	REC RUN	Always 1	
6	REGEN	The time code is set to REGEN. (With 0, PRESET)	
5	EXT	Not available.	
4	TC INSERT LAMP	The insert mode for the time code is selected.	
3	AUD-1 INSERT LAMP	The insert mode for AUDIO-1 is selected.	
2	AUD-2 INSERT LAMP	The insert mode for AUDIO-2 is selected.	
1	VIDEO INSERT LAMP	The insert mode for video is selected.	
0	ASSEMBLE LAMP	The assemble mode is selected.	

OTHERS

Fourth byte

No.	Bit	Status	Contents when the bit is 1
7	TBC BOARD	Not available.	
6	TC BOARD	Always 1.	
5	Not defined		
4	Not defined		
3	Not defined		
2	2nd FIELD FREEZE	Not available.	
1	1st FIELD FREEZE	Not available.	
0	DIGITAL MEMORY	Not available.	

The bit combination of the 2nd byte shows the timer mode.

Timer mode	Bit No.							
	7	6	5	4	3	2	1	0
CTL	0	0	0	1	—	—	0	0
LTC	0	0	1	0	—	—	1	0
LTC UB	0	1	0	0	—	—	1	0

VCR INQ (FBh)

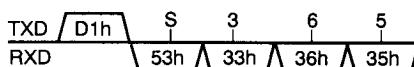
Checks whether the connected unit is a VCR or not.
• If a VCR is connected, ACK (0Ah) is returned.

DEVICE TYPE REQUEST (D1h)

Checks the model name of the connected VCR.

- Effective with JVC TABLE 1 ON.
- Returns the last four digits of the model name in ASCII code.

Example: SR-S365U

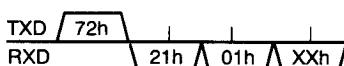


See the ASCII code table on page 44 for ASCII codes.

ROM VER. REQUEST (72h)

Checks the ROM version controlling the RS-232C.

- Effective with JVC TABLE 1 ON.
- Returns a 3-byte data packet.



Memory switch setting commands

Commands are also available which allow you to change the VCR's memory switches (menu switches) via RS-232C.
In this example, the classification of memory switch information and the procedure for checking and changing servo-related memory switch settings are described.

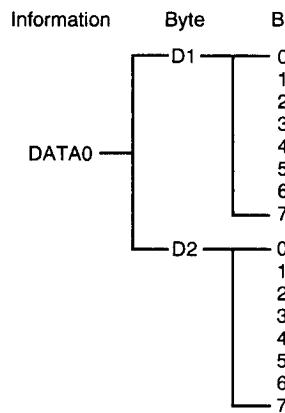
Memory switch information classification

Memory switch information is classified as follows.

Memory switch information	Data0
Servo information	01h
Video information	02h
Audio information 1	04h
Audio information 2	05h
System information 2	08h
System information 3	10h
On-screen information	82h
System information 7	89h

Specific memory switch information can be designated when sending DATA0 after MEMORY SW SENSE or MEMORY SW PRESET. This information (DATA0) consists of a 2-byte data (D1, D2) packet with each bit corresponding to a specific memory switch item.

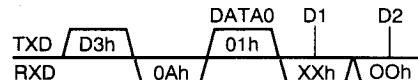
Refer to page 41 for memory switch assignments of individual bits.



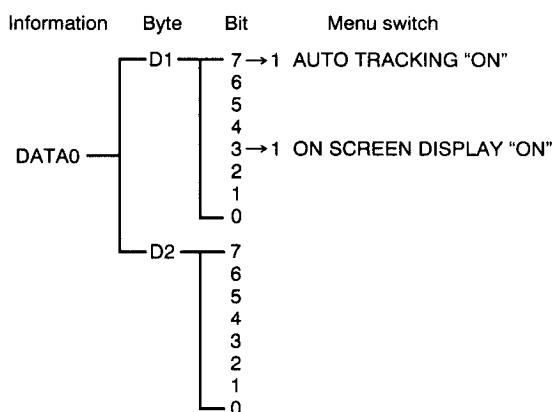
Checking the memory switch settings

Servo Information

When 01h (DATA0) designating the servo information is sent after the MEMORY SW SENSE (D3h), a 2-byte data packet (D1, D2) containing the corresponding servo information is returned.



Each bit in the returned data packet corresponds to a specific memory switch setting.



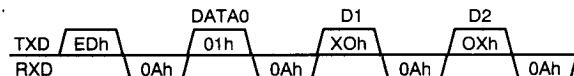
In this example, referring to the memory switch assignment table on pages 41 and 42 shows that the AUTO TRACKING and ON SCREEN DISPLAY are all ON.

Changing the memory switch settings

To set AUTO TRACKING to OFF

After sending the MEMORY SW PRESET (EDh), send 01 (DATA0) designating the servo information and 2-byte data packet (D1, D2) corresponding to the memory switch setting.

To set AUTO TRACKING to OFF, send data with bit No. 7 of D1 at 0.



- When sending data, be sure to maintain bit status checked with MEMORY SW SENSE (D3h) to ensure that other memory switch settings are not changed.

OTHERS

MEMORY SW SENSE (D3h)

Checks the VCR's memory switch (menu switch) settings.

- Effective with JVC TABLE 1 ON.
- Refer to "Checking the memory switch settings" on page 40.

For details on the relationship memory switch information and the VCR's menu switches (memory switches), see below.

MEMORY SW PRESET (EDh)

Changes the setting of the VCR's memory switches (menu switches).

- Effective with JVC TABLE 1 ON.
- Refer to "Changing memory switch settings" on page 40.

For details on the relationship memory switch information and the VCR's menu switches (memory switches), see below.

Menu switch No.	Menu name	Setting	2nd byte (DATA0)	3rd byte (D1)								4th byte (D2)							
				7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
005	AUTO TRACKING	OFF	01	0															
		ON		1															
100	S-VHS SELECT	VHS	02								0								
		AUTO									1								
101	EDIT SELECT	OFF	02							0								0	
		DUB								1								0	
		RENTAL								0								1	
200	Hi-Fi AUDIO REC	OFF	04								0								
		ON									1								
204	Hi-Fi OUT AT SEARCH	MUTE	04	0															
		NORMAL		1															
212	NORM. OUT AT SEARCH	OFF	05			0													
		ON				1													
213	A. DUB SELECT	A. DUB	04												0				
		Hi-Fi PB													1				
312	MODE AT TAPE END	STOP	08				0												
		REW					1												

OTHERS

Menu switch No.	Menu name	Setting	2nd byte (DATA0)	3rd byte (D1)								4th byte (D2)							
				7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
335	RECORDING MODE	SP	08	0															
		EP		1															
338	MENU SW 2	CLOSE	08															0	
		OPEN																1	
352	COUNTER MODE	CTL	89					0	0	1									
		TCR						1	0	0									
353	R. A. EDIT ADJUST	-4 F	89			0	0	0											
		-3 F				0	0	1											
		-2 F				0	1	0											
		-1 F				0	1	1											
		0 F				1	0	0											
		1 F				1	0	1											
		2 F				1	1	0											
		3 F				1	1	1											
354	BAUD RATE SELECT	1200	89	0	0														
		2400		0	1														
		4800		1	0														
		9600		1	1														
500	ON SCREEN DISPLAY	OFF	01					0											
		ON						1											
504	INFORMATION SELECT	TIME	82															0	
		TIME+MODE																1	

Edit operation commands

EDIT PRESET (E5h)

- Selects the edit mode (ASSEM, VIDEO, AUD-1, AUD-2, TC).
 • Effective with BASIC TABLE ON (JVC TABLE 1 OFF).
 • Two-byte numeric data must follow this command.

Bit assignment for each byte is shown below.

First byte

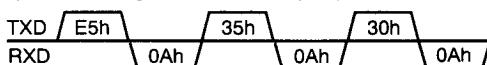
Bit No.	3	2	1	0
Mode	--	INSERT	ASSEM	VIDEO

Second byte

Bit No.	3	2	1	0
Mode	--	TC	AUD-2	AUD-1

For video insert

Set Bit Nos. 2 and 0 to 1 for the first byte to specify INSERT and VIDEO. Do this by sending the corresponding numeric values (35h and 30h) after sending EDIT PRESET (E5h).



SELECT EE ON/OFF (C8h)/(C9h)

Switches EE checking of the line selected with EDIT PRESET (E5h) on and off.

- Effective with BASIC TABLE ON (JVC TABLE 1 OFF).

PREROLL(A2h)

In preroll, the tape is rewound 5 seconds from the edit IN point. If no IN point has been set, the current tape position is considered the IN point. Once the tape has been prerolled, the STILL mode is engaged.

AUTO EDIT (C0h)

- Executes editing between the edit-in and edit-out points.
 • Effective with BASIC TABLE ON (JVC TABLE 1 OFF).

EDIT ON/OFF (CEh)/(CFh)

Starts or stops run editing in the edit mode selected with EDIT PRESET (E5h).

- Effective with BASIC TABLE ON (JVC TABLE 1 OFF).
- If no edit IN point is set, the current tape position becomes the default IN point.
- Run editing is not possible.
- Tapes recorded in the EP mode cannot be edited.
- Editing is executed between the preset IN and OUT points.

OTHERS

Time code-related commands

TC SW PRESET

Specifies the time code mode.

- The Preset mode and the Regene mode can be switched.
- If the second bit of the 1-byte data packet sent after this command is "1", the Regene mode is engaged. If it is "0", the Preset mode is engaged.
- The other bits are disabled.

LTC/LTC UB PRESET (E0h)/(E1h)

Sets LTC or LTC UB data.

- Effective with BASIC TABLE ON (JVC TABLE 1 OFF).
- Numeric data must follow this command. Refer to "presetting the time code" on page 32.

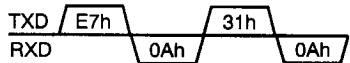
Using CTL time code

For details on CTL time code, refer to "CTL Time Code" on page 31.

Basic CTL time code operations are summarized here.

Current timer selection

Select LTC with TIMER MODE SELECT (E7h).



Data input

Select LTC time code with LTC PRESET (E0h).

When presetting the user bits, use LTCUB PRESET (E1h). The first four digits of the 8-digit preset data are not valid when presetting user bits.

For instance, when 12345678 is input, 00005678 is preset.

Checking CTL time code

Put the VCR into the STOP mode.

Send FULL EE ON (C4h).

When CTL time code is selected for the current timer, the preset CTL data is displayed on the counter display and on-screen. Select LTC time code with CURRENT LTC SENSE (D8h). When the command is sent, an 8-byte data packet is returned.

CTL time code recording and playback

Recording

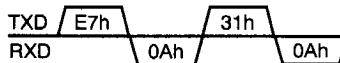
Rewind the tape to the beginning.

Engage the recording mode.

Counting starts from the preset value and recording is performed. If no data is preset, recording starts from "00:00:00:00".

Playback

Set the current timer to LTC.



Play back a CTL time code-recorded tape. The CTL data is displayed on the counter display and on-screen.

This data can be checked with CURRENT LTC SENSE (D8h). However, because CTL time code is read every two seconds during playback, check to make sure that the time code is not CTL interpolation. When programming, you can check by confirming that the CTL interpolation bits (the second and third bits) are 0.

BASIC TABLE

High-order																		
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
Low-order		0			Data"0"	ENTER	IN ENTRY						AUTO EDIT		LTC PRESET		0	
1		COMPLETION			Data"1"	CLEAR ERROR	OUT ENTRY								LTC UB PRESET		1	
2		ERROR			Data"2"	CUE UP WITH DATA	IN FLAG RESET					PRE-ROLL	CUE UP WITH DATA	REVIEW		COUNTER RESET		2
3		CASSETTE OUT			Data"3"		OUT FLAG RESET					EJECT			IN DATA PRESET		3	
4					Data"4"	REPEAT						REPEAT	FULL EE ON		OUT DATA PRESET		4	
5		NOT TARGET			Data"5"							F-SHUTTLE	FULL EE OFF		EDIT PRESET		5	
6					Data"6"		CLEAR					R-SHUTTLE			JVC TABLE 1 ON		6	
7					Data"7"								SELECT EE ON	CURRENT LTC SENSE		TIMER MODE SELECT		7
8					Data"8"								SELECT EE OFF	CURRENT CTL SENSE				8
9					Data"9"										TUNER STATUS		9	
A		ACK			PLAY	REV X1	MEMORY						REC	IN DATA SENSE		REC/DUB REQUEST	A	
B		NAK			FWD X5	REV X5	MEMORY SEARCH					FF	REC PAUSE	OUT DATA SENSE	TC SW PRESET	VCR INQ	B	
C					FWD X1/6	REV X1/6						REW	AUDIO DUB	CURRENT LTC UB SENSE			C	
D					F-STILL	R-STILL						F-FIELD STEP		AUDIO DUB PAUSE	JVC STATUS SENSE		D	
E					FWD X7	REV X7						R-FIELD STEP		EDIT ON			E	
F					STOP	STILL							EDIT OFF				F	

OTHERS

JVC TABLE 1

High-order																
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Low-order	0			Data"0"	ENTER						VISS FWD					0
	1	COMPLETION		Data"1"	CLEAR ERROR						VISS REV		DEVICE TYPE REQUEST			1
	2	ERROR		Data"2"			ROM VER.	SENSE			CUE UP WITH DATA			COUNTER RESET		2
	3	CASSETTE OUT		Data"3"						EJECT			MEMORY SW SENSE			3
	4			Data"4"							FULL EE ON					4
	5	NOT TARGET		Data"5"							F-SHUTTLE	FULL EE OFF				5
	6			Data"6"	CLEAR					R-SHUTTLE						6
	7			Data"7"								STATUS SENSE	TIMER MODE SELECT	JVC TABLE 1 OFF		7
	8			Data"8"								CURRENT LTC SENSE				8
	9			Data"9"								CURRENT CTL SENSE		TUNER STATUS		9
A	ACK		PLAY		MEMORY						REC			REC/DUB REQUEST		A
B	NAK				MEMORY SEARCH	OPERATE ON		FF			REC PAUSE			VCR INQ		B
C						OPERATE OFF		REW			AUDIO DUB	CURRENT LTC UB SENSE				C
D								F-FIELD STEP			AUDIO DUB PAUSE	JVC STATUS SENSE	MEMORY SW PRESET			D
E								R-FIELD STEP								E
F			STOP	STILL												F

How to represent time data

Tape position and time data for time codes are represented as follows while being sent and returned.

The ten's and one's places of hours, minutes, seconds and frames are represented by 1-byte ASCII codes.

Example 12 hours 34 minutes 56 seconds 00 frames

Unit	Hours	Minutes	Seconds	Frames
Place	10	1	10	1
Time	1	2	3	4
ASCII code	31h	32h	33h	34h

10	1	10	1	10	1	10	1
Time	1	2	3	4	5	6	0
ASCII code	31h	32h	33h	34h	35h	36h	30h

24-hour system and 9-hour system

Time data can be represented by the 24-hour system or the 9-hour system.

The 24-hour system is able to represent the time data from 00 hours 00 minutes 00 seconds 00 frames to 23 hours 59 minutes 59 seconds 29 frames.

The 9-hour system is able to represent the time data from - 9 hours 59 minutes 59 seconds 29 frames to 99 hours 59 minutes 59 seconds 29 frames.

Representation

Representation is given when the ten's place of time digit falls upon the ASCII code of 38h

Example -6 hours 54 minutes 32 seconds 10 frame

Unit	Hours	Minutes	Seconds	Frames
Place	10	1	10	1
Time	-	6	5	4
ASCII code	38h	36h	35h	34h

10	1	10	1	10	1	10	1
Time	-	6	5	4	3	2	1
ASCII code	38h	36h	35h	34h	33h	32h	31h

ASCII Code table

0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0			0	P	p										
1			1	A	Q	a	q								
2			2	B	R	b	r								
3			3	C	S	c	s								
4			4	D	T	d	t								
5			5	E	U	e	u								
6			6	F	V	f	v								
7			7	G	W	g	w								
8			8	H	X	h	x								
9			9	I	Y	i	y								
A				J	Z	j	z								
B				K		k									
C				L		l									
D				M		m									
E				N		n									
F				O		o									

OTHERS

TROUBLESHOOTING

Symptoms	Causes	Actions
S-VHS recording disabled	<ul style="list-style-type: none"> ● VHS tape in use ● Menu Switch No. 100 S-VHS SELECT set to VHS. 	<ul style="list-style-type: none"> ● Use the S-VHS tape. ● Set Menu Switch No. 100 S-VHS SELECT to AUTO
No on-screen display comes up	<ul style="list-style-type: none"> ● Menu Switch No. 500 ONSCREEN DISPLAY set to OFF. 	<ul style="list-style-type: none"> ● Set Menu Switch No. 500 ONSCREEN DISPLAY to ON.
No video signal input	<ul style="list-style-type: none"> ● Front panel Y/C.LINE video input select switch setting not matching the video input signal. 	<ul style="list-style-type: none"> ● Correctly set the Y/C.LINE video input select switch.
Hi-Fi sound recording disabled	<ul style="list-style-type: none"> ● Menu Switch No. 200 Hi-Fi AUDIO REC set to OFF. 	<ul style="list-style-type: none"> ● Set Menu Switch No. 200 Hi-Fi AUDIO REC to ON.
Control with SR-S365U disabled	<ul style="list-style-type: none"> ● Front panel RS-232C/LOCAL/REMOTE switch set to RS-232C or REMOTE. 	<ul style="list-style-type: none"> ● Set RS-232C/LOCAL/REMOTE switch to LOCAL.
Recording disabled	<ul style="list-style-type: none"> ● Cassette's safety tab has been removed. 	<ul style="list-style-type: none"> ● Cover the hole with adhesive tape.
Audio dubbing and assembly/insert editing disabled	<ul style="list-style-type: none"> ● Tape recorded in EP mode in use. 	<ul style="list-style-type: none"> ● Not operable with the tape recorded in EP mode. Compatible only with the tape recorded in standard (SP) mode.
CTL time code recording disabled	<ul style="list-style-type: none"> ● Recorded in EP mode. CTL time recording disabled in EP mode. 	<ul style="list-style-type: none"> ● Record in standard (SP) mode.
Playback picture noisy or coarse	<ul style="list-style-type: none"> ● Tracking incorrect. ● Video heads are dirty. 	<ul style="list-style-type: none"> ● Adjust tracking. ● Clean the video head.
No sound during playback	<ul style="list-style-type: none"> ● Output not from the channel recorded. 	<ul style="list-style-type: none"> ● Select the channel with audio recorded with AUDIO OUT SELECT button.
Hi-Fi sound noisy during playback	<ul style="list-style-type: none"> ● Tracking incorrect. 	<ul style="list-style-type: none"> ● Adjust tracking.
No Hi-Fi sound during search	<ul style="list-style-type: none"> ● Hi-Fi sound not available in search mode. 	—
If the unit is on, the power is automatically turned off.	<ul style="list-style-type: none"> ● Warning signal detected. 	<ul style="list-style-type: none"> ● Turn the power on again. If the power doesn't come on, there is probably a problem with the deck. Contact your JVC dealer.

Note: Refer to 1.5.7 Showing and resetting emergency records.

Since the SR-S365U incorporates microprocessors, improper operation may be caused by externally generated interference. In this case, turn the power off, unplug the power cable, connect it again and check the operation of the VCR.

OTHERS

SPECIFICATIONS

■ Recording system	Luminance: FM Chroma: Low-range conversion
■ Signal format	NTSC
■ Tape speed	33.35 mm/sec Standard (SP) mode 11.12 mm/sec Extended (EP) mode
■ Record/playback time	2 hrs. (standard SP mode) 6 hrs. (triple EP mode) with T-120 tape
■ FF/REW time	Approx. 3 min. (with T-120 tape)
■ Power supply	AC 120 V, 60 Hz
■ Power consumption	20 W (25 W when using RM-G800U)
■ External dimensions	W400 x H94 x D340 mm
■ Weight	4.8 kg
■ Allowable operating temperatures	5°C ~ 40°C
■ Allowable operating humidities	35 to 80% RH
■ Allowable storage temperatures	-20°C ~ 60°C

[VIDEO]

■ Signal input	LINE : 0.5 ~ 2.0 Vp-p, 75 ohms, unbalanced Y/C Y: 1.0 Vp-p, 75 ohms, unbalanced C: 0.286 Vp-p, 75 ohms, unbalanced
■ Signal output	LINE : 1.0 Vp-p, 75 ohms, unbalanced Y/C Y: 1.0 Vp-p, 75 ohms, unbalanced C: 0.286 Vp-p, 75 ohms, unbalanced
■ Horizontal resolution	More than 400 lines (S-VHS) More than 240 lines (VHS)
■ Video S/N	More than 45 dB (S-VHS)

[AUDIO]

■ Number of tracks	3 (Hi-Fi x 2, Normal x 1)
■ Line input	-8 dBs, 50 kohms, unbalanced
■ Line output	-8 dBs, 1 kohm, unbalanced
■ Headphone output	-∞ to -14dBs, 8 ohms, unbalanced
■ Hi-Fi sound characteristics	
• Frequency response	20 Hz ~ 20 kHz
• Dynamic range	More than 85 dB
• Wow & flutter	Less than 0.006 % W.RMS
■ Normal sound characteristics	
• Frequency response	100Hz ~ 10 kHz (SP mode)
• Wow & flutter	Less than 0.30 % RMS (SP mode)
■ Standard accessories	
• Y/C cable x 1	

* Design and specifications subject to change without notice.

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VICTOR COMPANY OF JAPAN, LIMITED

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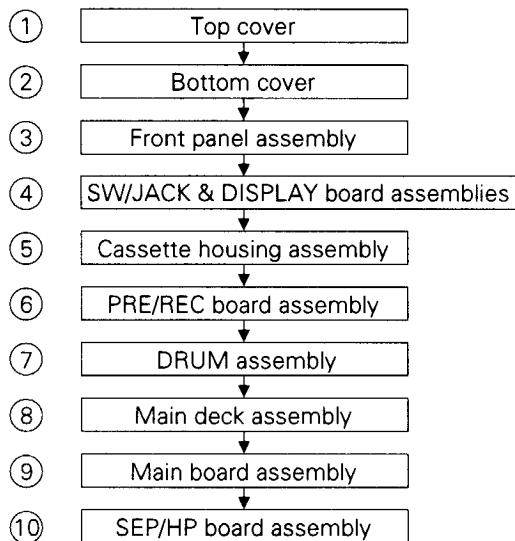
SECTION 1

SERVICE CAUTIONS AND DISASSEMBLY

1.1 REMOVAL OF MAIN PARTS

1.1.1 DISASSEMBLY FLOW CHART

This flowchart shows the disassembling steps for the cabinet parts and P.C. boards in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order. Bend, route and dress the flat cables as they were originally laid.



1.1.2 HOW TO READ THE DISASSEMBLY AND ASSEMBLY

STEP /LOC NO.	PART NAME	FIG. NO.	POINT	NOTE
①	TOP COVER	D1	5(S3),	
②	BOTTOM COVER	D2	(S5), 7(L1),2(P1)	
③	FRONT PANEL ASSEMBLY	D3	7(L2),*JOG/SHUTTLE	<NOTE1>
④	SW/JACK & DISPLAY BOARD ASSEMBLIES	D4	13(L3),*CN1, *CN3, *CN5	<NOTE2>
⑤	CASSETTE HOUSING ASSEMBLY	D5	2(S1) , 2(S12) EARTH PLATE	<NOTE3>
⑥	PRE/REC BOARD ASSEMBLY	D6	2(S9),*CN1 *CN203,*CN204 SHIELD CASE	
⑦	DRUM ASSEMBLY	D7	3(S8),WR3,4(L4), (L5) INERTIA PLATE HEAD CLEANER	<NOTE4>
⑧	MAIN DECK ASSEMBLY	D8	2(S13),WR5,WR7, WR8,2(L6),*CN603	<NOTE5>
⑨	MAIN BOARD ASSEMBLY	D9	5(S1), (S5),(L7)	
⑩	SEP/HP BOARD ASSEMBLY	D9	3(S1),(L8)	

- (1) Order of steps in procedure
When reassembling, perform the step(s) in the reverse order. These numbers are also used as the identification (location) No. of parts Figures.
- (2) Part name to be removed or installed.
- (3) Fig.No. showing procedure or part location
- (4) Identification of part to be removed,unhooked,unlocked, released,unplugged,unclamped or unsoldered. P = Spring, W = Washer, S = Screw, L = Locking tab, * = Unhook,unlock, release,unplug or unsolder.
- (5) Additional information for installation

1.1.3 DISASSEMBLY/ASSEMBLY METHOD

STEP /LOC NO.	PART NAME	FIG. NO.	POINT	NOTE
①	TOP COVER	D1	5(S3),	
②	BOTTOM COVER	D2	(S5), 7(L1),2(P1)	
③	FRONT PANEL ASSEMBLY	D3	7(L2),*JOG/SHUTTLE	<NOTE1>
④	SW/JACK & DISPLAY BOARD ASSEMBLIES	D4	13(L3),*CN1, *CN3, *CN5	<NOTE2>
⑤	CASSETTE HOUSING ASSEMBLY	D5	2(S1) , 2(S12) EARTH PLATE	<NOTE3>
⑥	PRE/REC BOARD ASSEMBLY	D6	2(S9),*CN1 *CN203,*CN204 SHIELD CASE	
⑦	DRUM ASSEMBLY	D7	3(S8),WR3,4(L4), (L5) INERTIA PLATE HEAD CLEANER	<NOTE4>
⑧	MAIN DECK ASSEMBLY	D8	2(S13),WR5,WR7, WR8,2(L6),*CN603	<NOTE5>
⑨	MAIN BOARD ASSEMBLY	D9	5(S1), (S5),(L7)	
⑩	SEP/HP BOARD ASSEMBLY	D9	3(S1),(L8)	

<NOTE1>

When reattaching the front panel assembly, make sure that the door opener of the cassette housing assembly is lowered in position prior to the reinstallation.

<NOTE2>

When plugging the connector in, check that the flat wire is inserted properly and fully.

<NOTE3>

When reattaching the cassette housing assembly, pay careful attention to the switch lever not to make it touch the REC switch knob of the REC SAFETY board assembly from the upside.
(If the REC switch knob of the REC SAFETY board assembly is damaged, cassette loading is impossible.)

<NOTE4>

When plugging the connector in, check that the flat wire is inserted properly and fully.

<NOTE5>

- When removing the Main deck assembly only, unhook the two spacers connecting it with the Main board assembly with pliers from the back side of the Main board assembly first, and then remove the Main deck assembly.
- When reattaching the Main deck assembly to the Main board assembly, make sure to set the spacers into the retaining slots respectively.

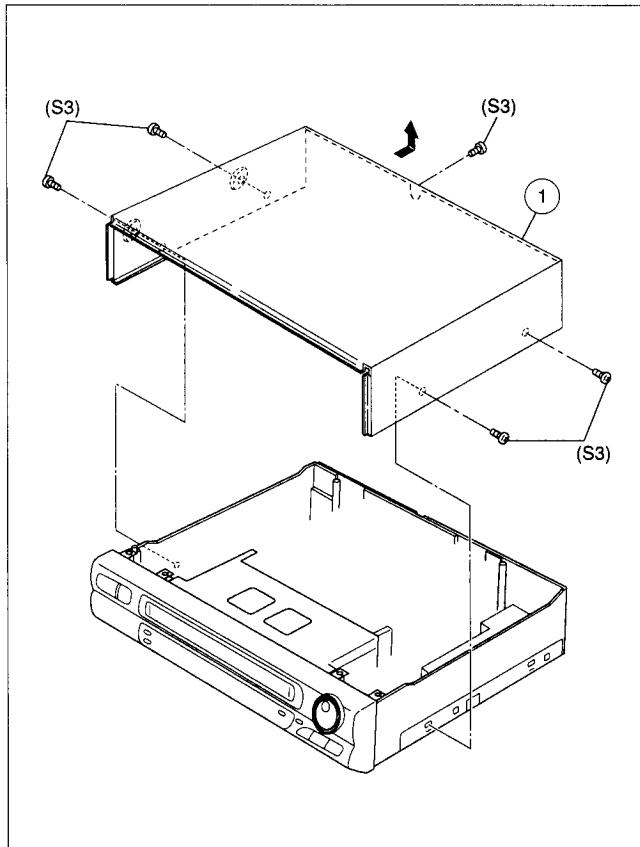


Fig. D1

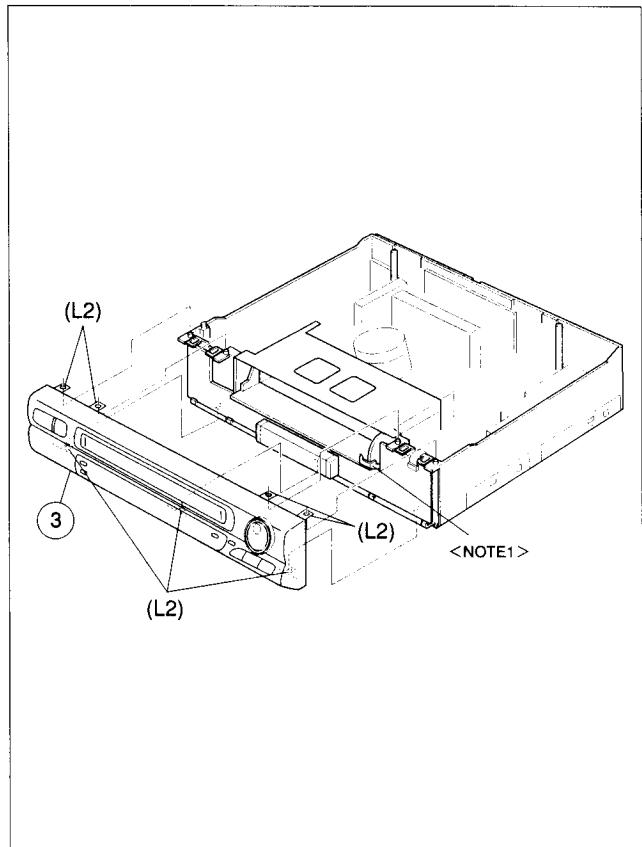


Fig. D3

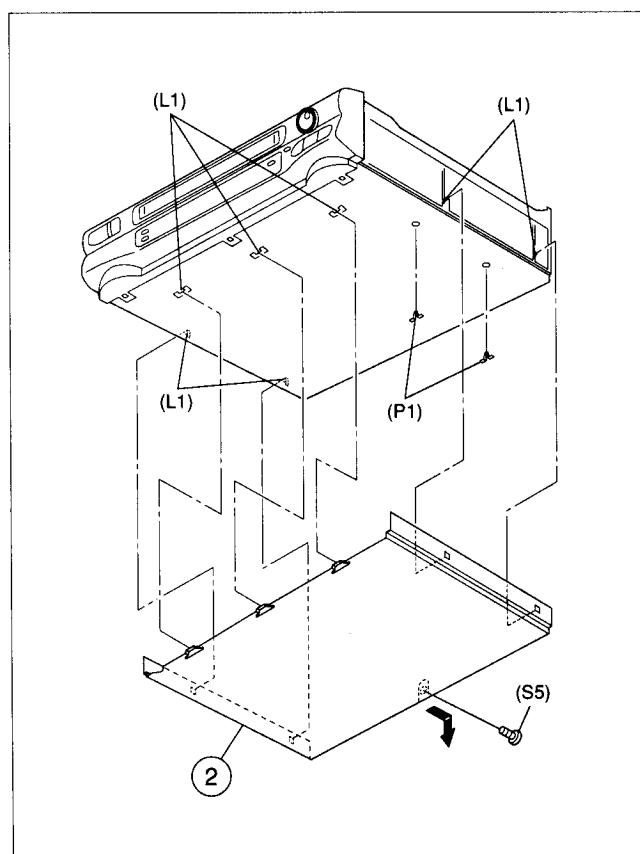


Fig. D2

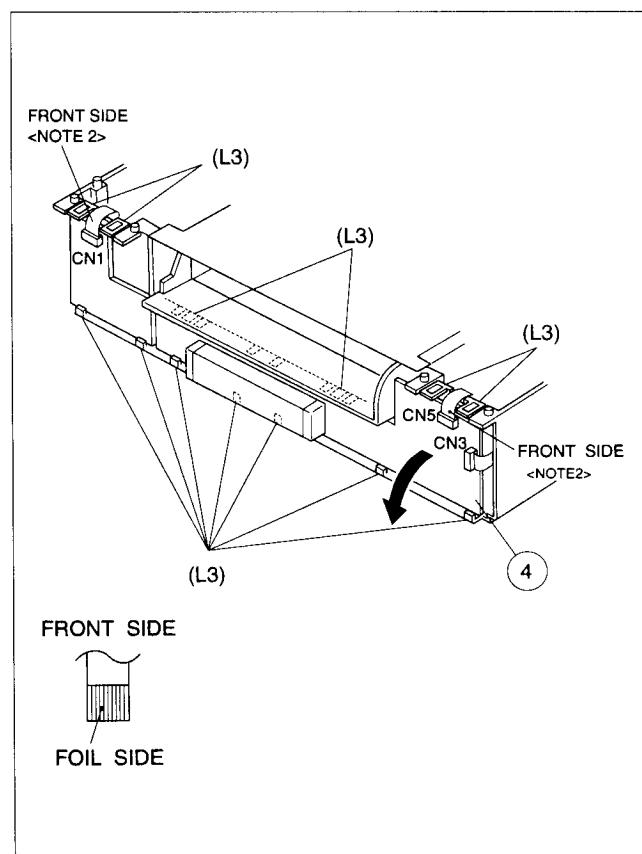


Fig. D4

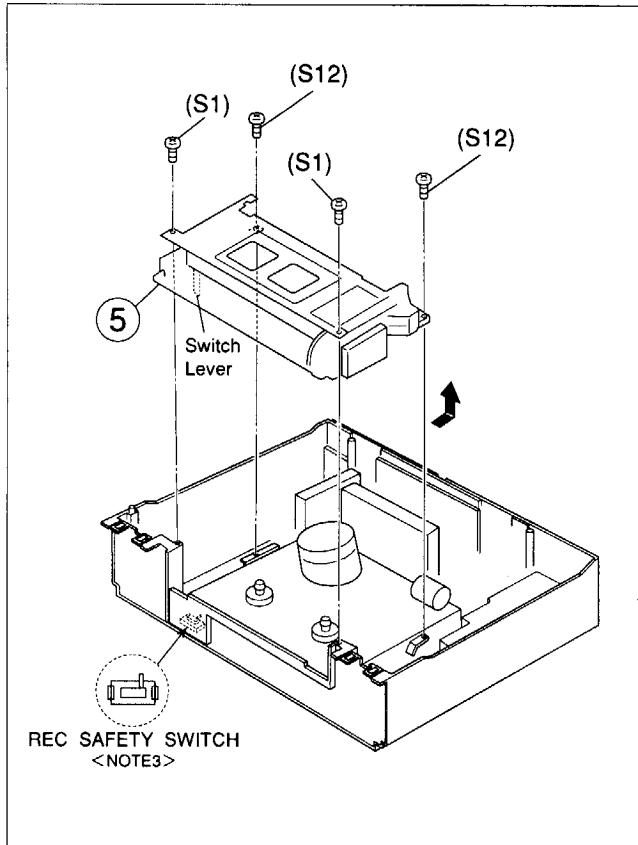


Fig. D5

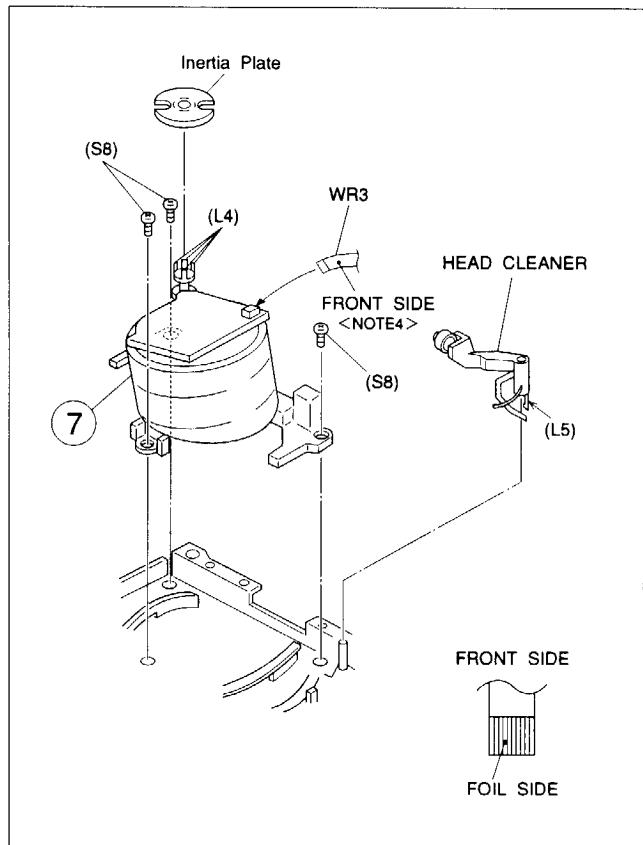


Fig. D7

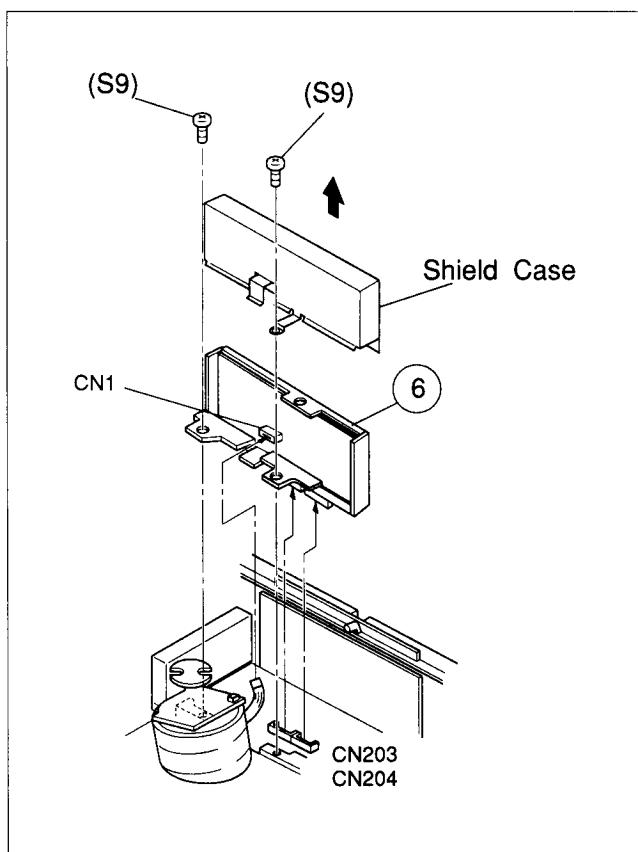


Fig. D6

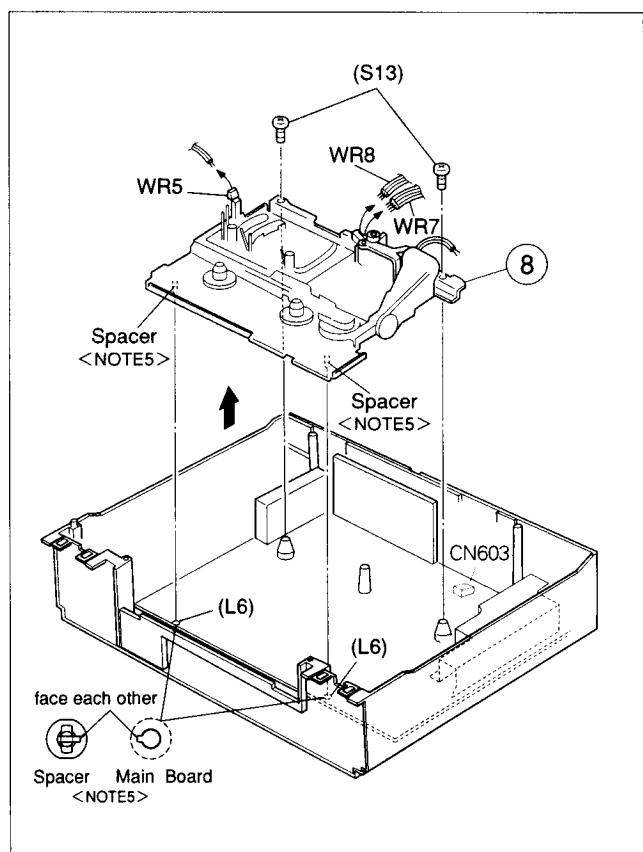


Fig. D8

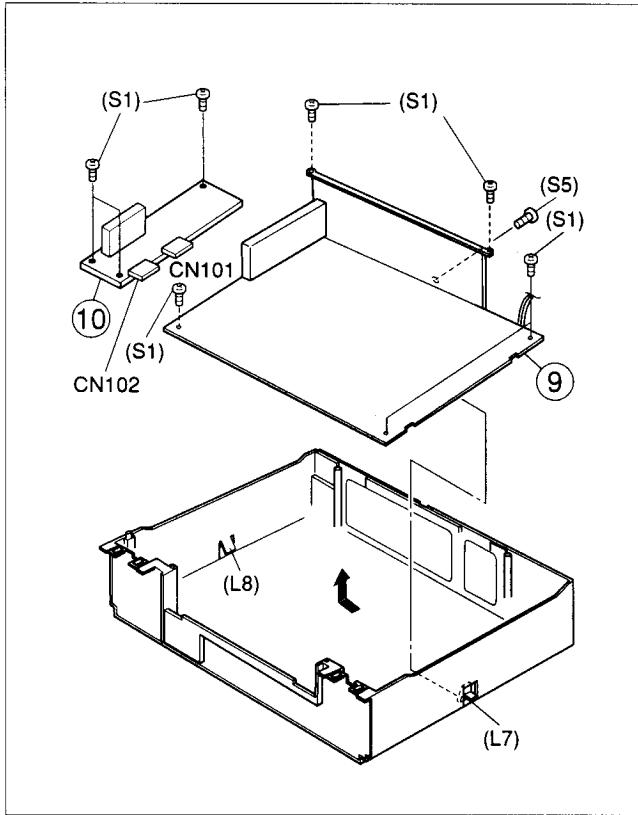


Fig. D9

1.2 CASSETTE HOUSING INSTALLATION

NOTE: Observe the mechanical phase and position (see figure) when installing the cassette housing assembly. If these are incorrect, the system will not operate properly even when tape is inserted.

1. Check that the hole of the control cam are aligned to the deck hole. If necessary, turn the mode motor belt by hand to adjust the position.

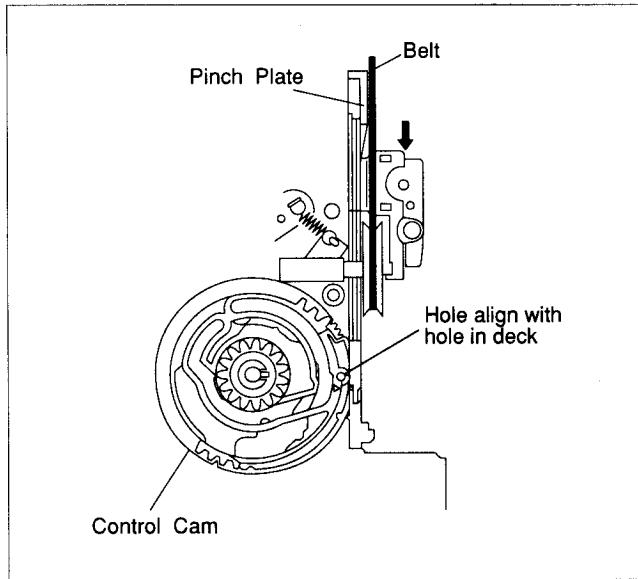


Fig. 1-2-1

1.3 SERVICE POSITION

1.3.1 How to take out the Mechanism and Main board assemblies.

- (1) Remove the Top cover, Front panel assembly, CN1 of the SW/JACK board assembly and CN3/CN5 of the DISPLAY board assembly.
- (2) Take out 10 screws (S1), 2 screws (S13) and 1 screw (S5) as shown in Fig.1-3-1.

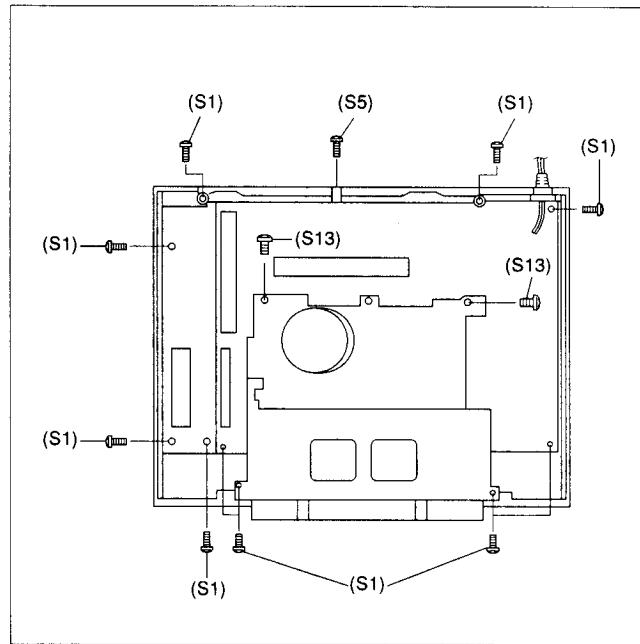


Fig. 1-3-1

- (3) Disengage 2 claws (a) from the chassis.
- (4) Remove the Mechanism assembly (including Cassette housing) and Main board assembly out of the chassis as shown in Fig. 1-3-2.

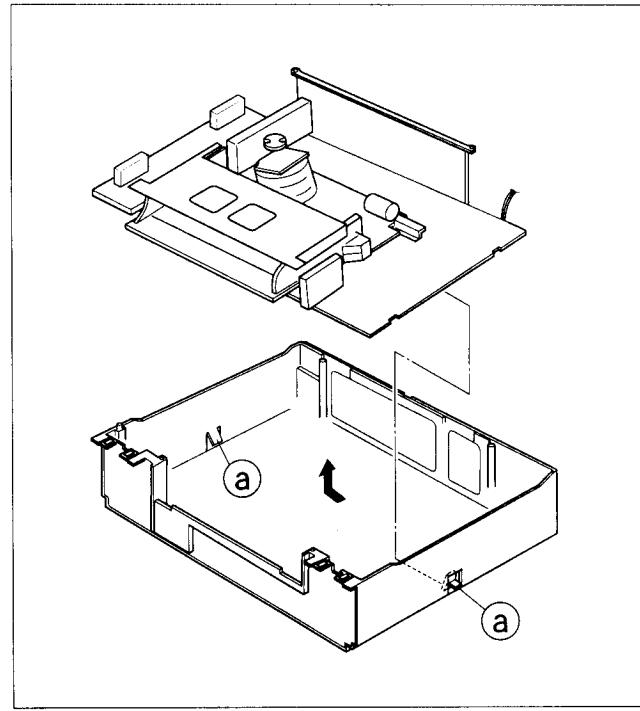


Fig. 1-3-2

- (5) Turn over the Mechanism assembly and Main board assembly then connect CN5 and CN3 of the DISPLAY board assembly.
- (6) Carry out checks & repairs as necessary as shown in Fig.1-3-3.

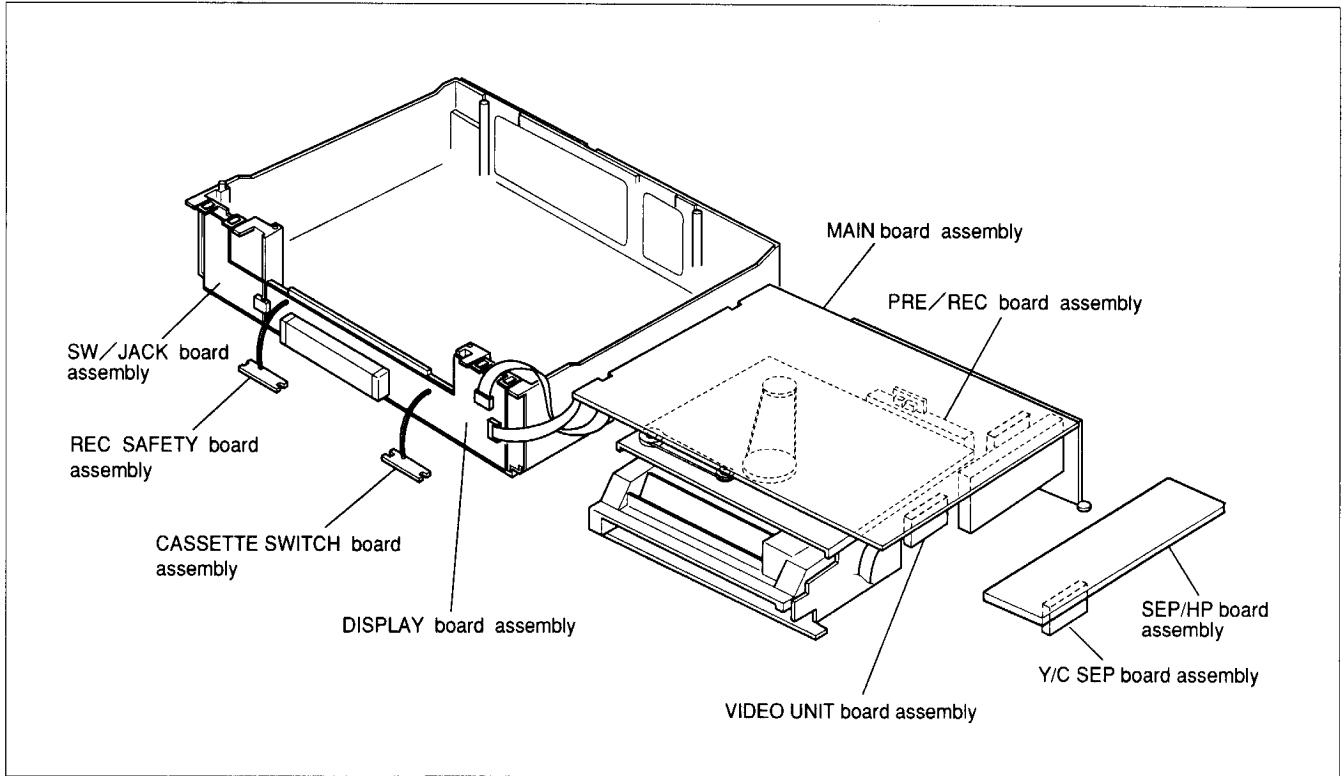


Fig. 1-3-3

1.3.2 Cautions on cassette loading when mechanism is in service position

The REC SAFETY board assembly of this set serves both for detecting the safety tab (erasure prevention tab) of a cassette and detecting a cassette loaded. Therefore, cassette loading in the condition that the mechanism is disassembled from the set needs manual operation of the switches of the REC SAFETY board assembly and the CASSETTE SWITCH board assembly.

1.3.3 Cassette loading and ejecting procedures when mechanism is in service position

- (1) Insert a cassette tape halfway into the cassette housing assembly.
- (2) Press the switch of the REC SAFETY board assembly to turn on.
- (3) When the cassette loading begins and the cassette goes down to the bottom, immediately press the switch of the REC SAFETY board assembly to turn off and hold the status that the switch (S36) of the CASSETTE SWITCH board assembly is turned on. (Fix the switch with adhesive tape or put a screwdriver, etc. on it to leave the switch in the ON status.)

- (4) In this status, desired operations (recording, playback, fast forward, rewind, etc.) can be performed.

Note: When the mechanism is in the service position, the safety tab of cassette tape is not detected and recording on cassette tapes without safety tab is possible. Therefore, carefully choose a cassette tape for operation in this mode so as to avoid using cassette tapes of important recording.

- (5) For ejecting the cassette in this status, do it in the reverse order of cassette loading mentioned above.

Note: If the manual operation REC SAFETY switch timing is incorrect, the cassette may be completely or partially ejected, and the cassette is often ejected incompletely. In such a case, it is possible to take out the cassette by hand.

If it is desired to load a cassette again after the cassette is ejected in the above procedure, make sure to set the tray of the cassette housing assembly in the frontmost position prior to loading the cassette once again.

1.3.4 Opening on the chassis.

The chassis assembly has openings for easy access to the checkpoints and connector pins as shown in Fig.1-3-4.

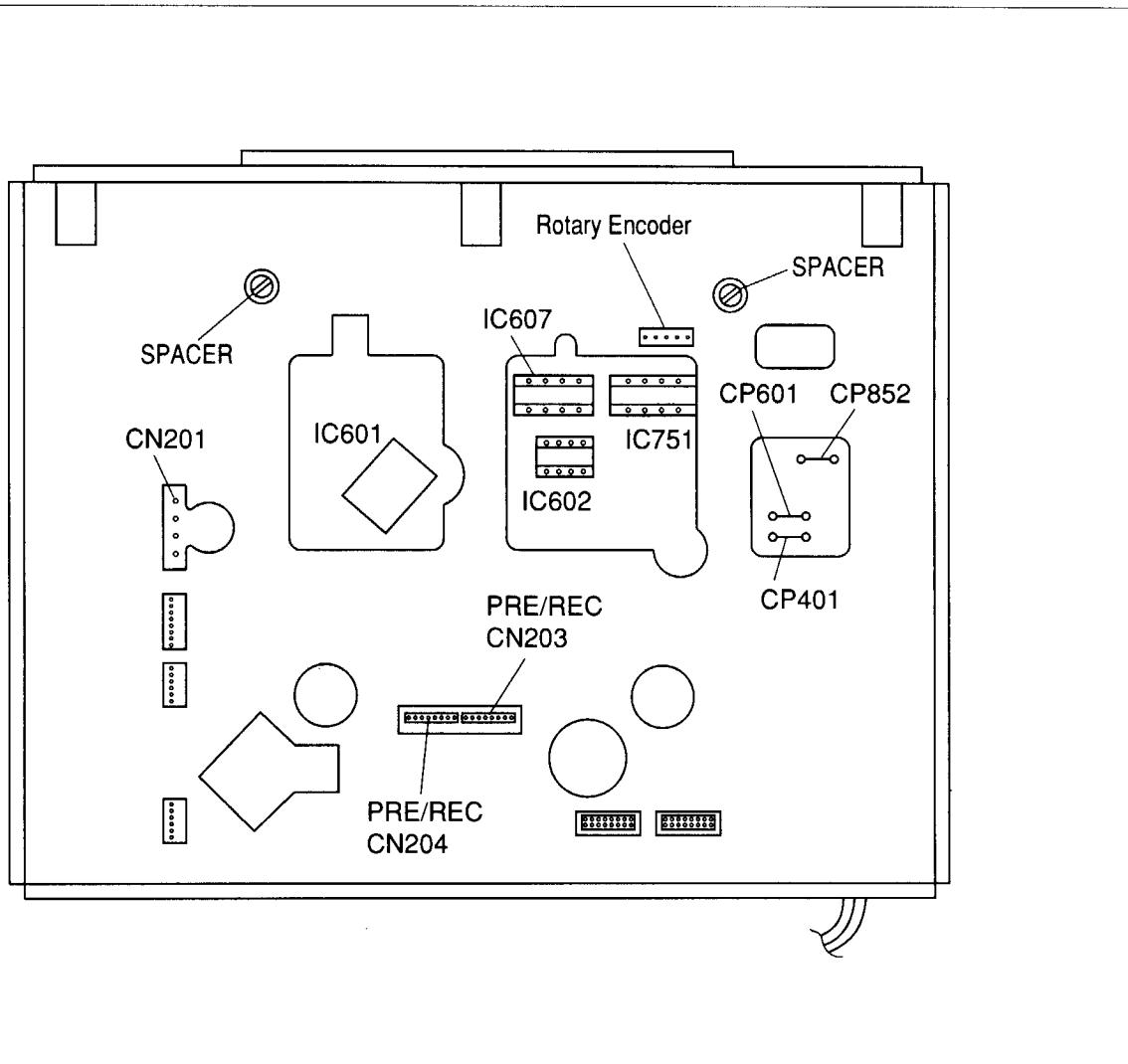


Fig. 1-3-4

1.4 MECHANISM SERVICE MODE

This model has a unique function to enter the mechanism into every operation mode without loading of any cassette tape. This function is called the "MECHANISM SERVICE MODE".

1.4.1 How to set the "MECHANISM SERVICE MODE"

- (1) Disconnect AC power.
- (2) Remove the Top cover, Front panel assembly and cassette housing assembly. (See Page 1-2, 1-3)

- (3) Connect TP1 (TEST) and TP2 (GND) or B103 (GND) on the DISPLAY board assembly with a jump wire.
- (4) Supply AC power.
- (5) Press the POWER button.
- (6) Select the desired operation modes with the operation buttons or remote controller.

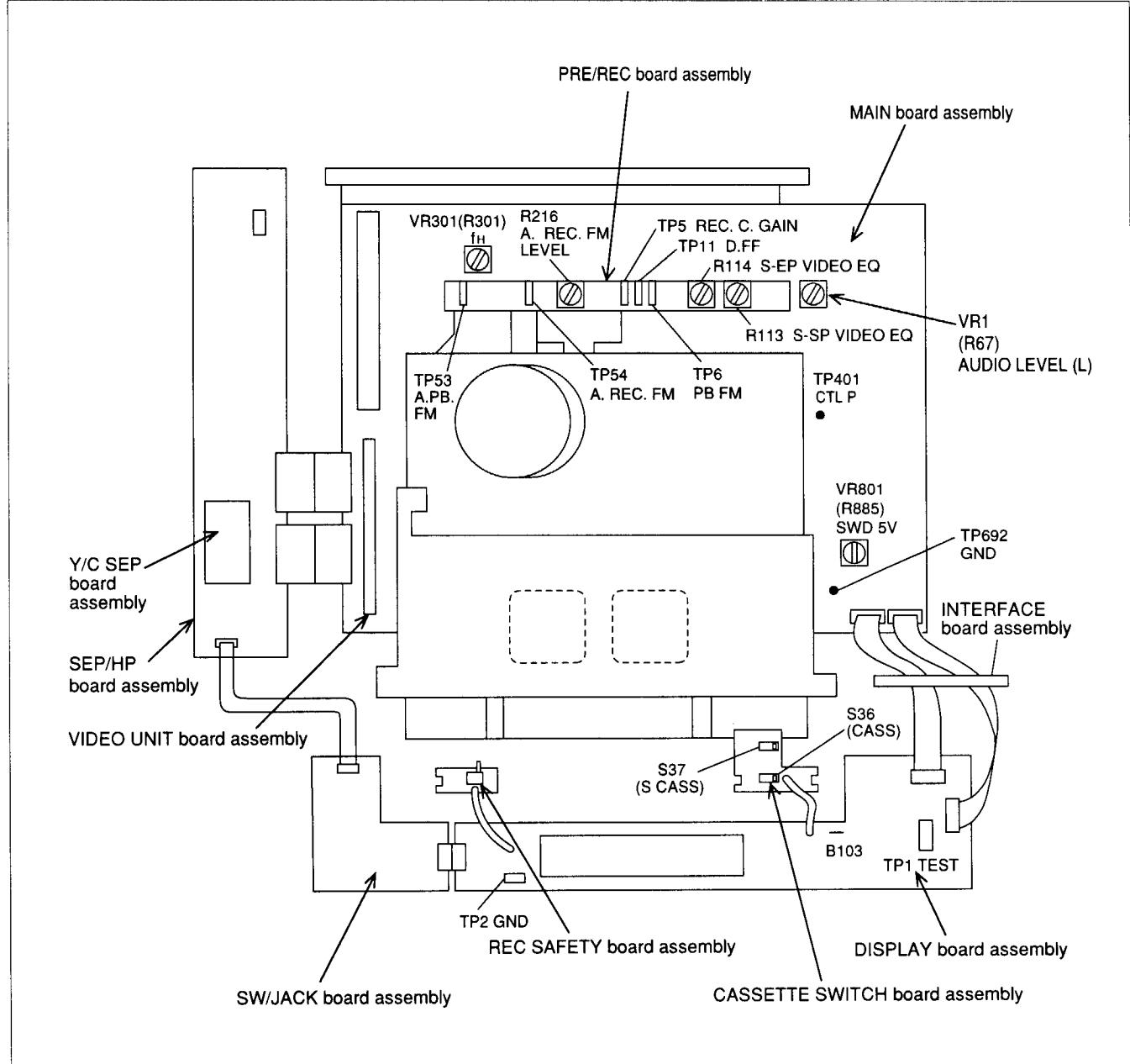


Fig. 1-4-1

1.5 SERVICE MODE

The SR-S365 is provided the Service Mode for servicing.

1.5.1 Outline of service mode

The service mode is outlined in the following.

- (1) Function to access the Service Menu Switch and to set those switches.
- (2) Function to show hour meter and accumulated operation times.
- (3) Function to indicate version of ROM.
- (4) Function to show and to reset emergency records.
- (5) Function to diagnose FDP.
- (6) Function to set position of on-screen display.
- (7) EVR adjustment.
- (8) Slow tracking preset adjustment.
- (9) Switching point adjustment.

1.5.2 Accessing to service mode

1. Set the REMOTE switch on the front panel to "LOCAL" position.
2. Press the **STOP**, **PAUSE** and **MENU** buttons together at the same time.
3. The VTR enters the service mode with "SERVICE MENU" appearing on the on-screen display or "SEL:20" appearing on the FDP.

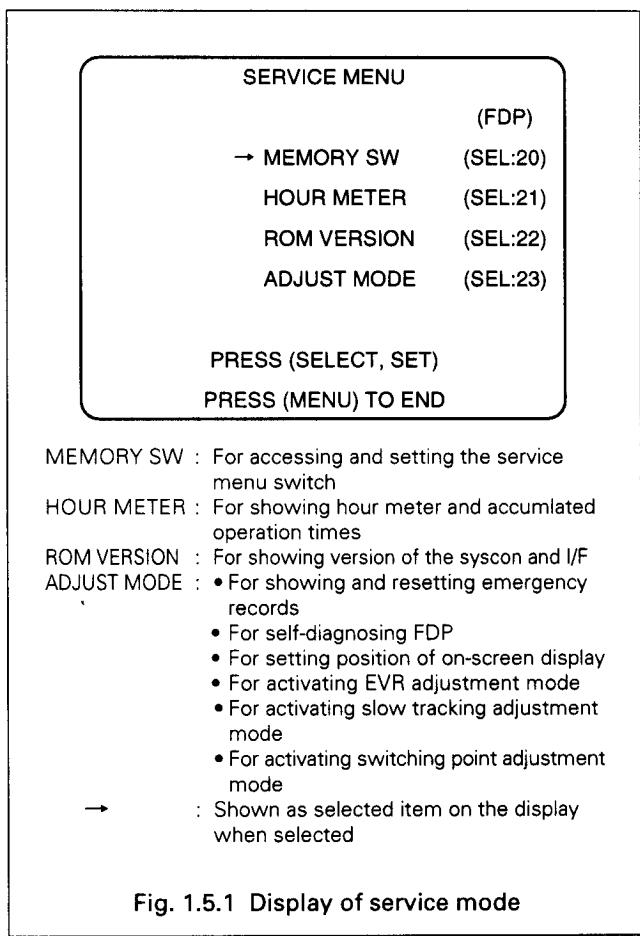


Fig. 1.5.1 Display of service mode

4. Press the **SELECT** button to select a desired mode.
5. Press the **SET** button to enter the VTR into the selected mode.
6. Execute the selected mode according to the sections 1.5.3 through 1.5.11.
7. For clearing the service mode, press the **MENU** button.

1.5.3 Setting service menu switches

Besides menu switches explained in the instructions, the SR-S365 has extra menu switches for service purpose only. The following explains how to change setting of those switches.

1. Set to service mode. (Refer to 1.5.2.)
2. As the VTR enters the service mode, "SERVICE MENU" appears on the on-screen display or "SEL:20" appears on the FDP. (Refer to Fig. 1.5.1.)
3. Select "MEMORY SW (SEL:20)" by pressing the **SELECT** button. (Refer to Fig. 1.5.1.)
4. Press the **SET** button, and the service menu switch appears on the on-screen display.
5. Select a desired menu switch by pressing the **SELECT** button.
6. Press the **SET** button to change the setting of the switch.
7. For quitting the menu switch, press the **MENU** button.

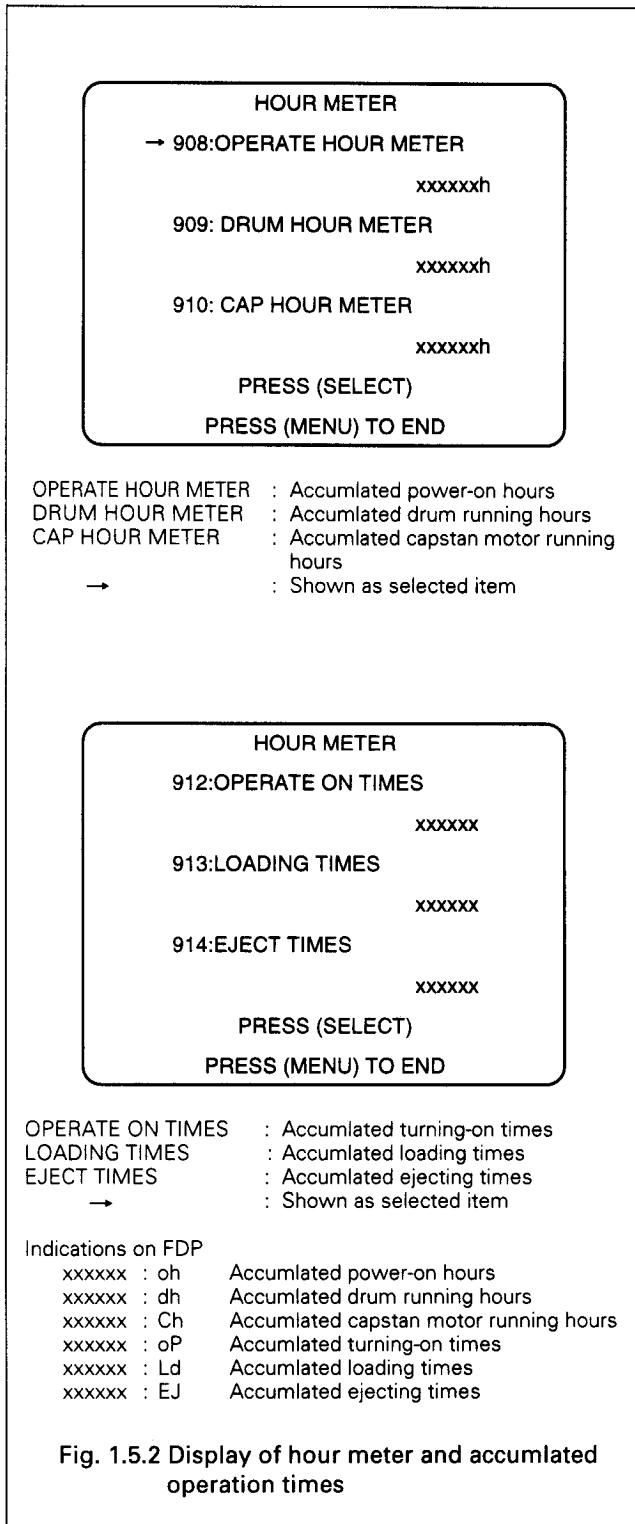
Item		Function	Setting	
No.	Name		OSD	FDP
303	WARNING ENABLE	To enable warning	[ON]	[1]
		To disables warning	OFF	0
305	REPEAT REC.	To operate repeated recording	ON	1
		Not to operate repeated recording	[OFF]	[0]
306	LONG PAUSE DISABLE	Not to activate long pause mode	ON	1
		To activate long pause mode according to setting of Menu No. 307	[OFF]	[0]
		To activate long pause mode 1 second later	0	0
		To activate long pause mode 10 seconds later	1	1
		To activate long pause mode 30 seconds later	2	2
		To activate long pause mode 1 minute later	3	3
		To activate long pause mode 2 minutes later	4	4
		To activate long pause mode 3 minutes later	5	5
		To activate long pause mode 4 minutes later	6	6
307	LONG PAUSE TIME	To activate long pause mode 5 minutes later	[7]	[7]
		To operate repeated playback	ON	1
		Not to operate repeated playback	[OFF]	[0]
345	REPEAT PLAY	Setting in square brackets [] indicates initial setting on shipment.		

LONG PAUSE mode : Every time the period of time set by the menu item No. 307 elapses, the mode is shifted to the STOP mode from the PAUSE(STILL) mode.

Table 1.5.1 Table of service menu switches

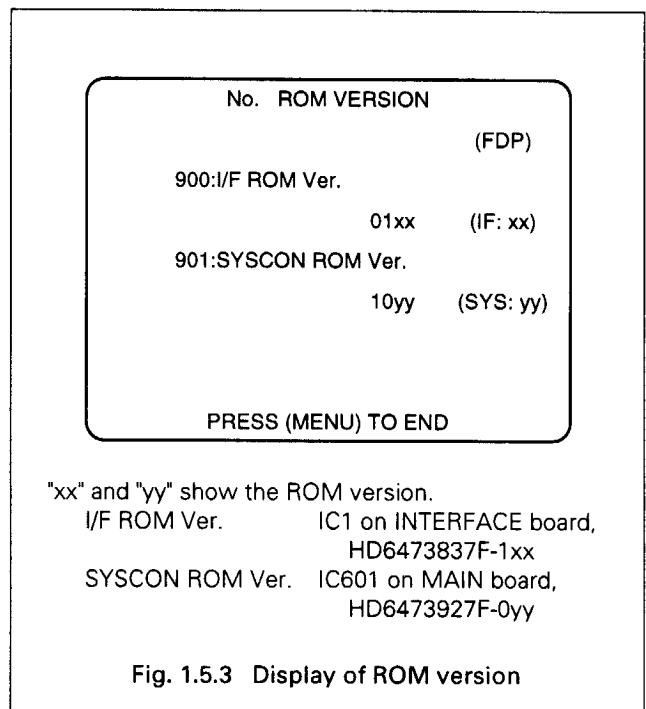
1.5.4 Showing hour meter and accumulated operation times

1. Set to service mode. (Refer to 1.5.2.)
2. Select "HOUR METER (SEL:21)" by pressing the **SELECT** button. (Refer to Fig. 1.5.1.)
3. Press the **SET** button, and hour meter and number of operation times appear on the display.



1.5.5 Showing ROM version

1. Set to service mode. (Refer to 1.5.2.)
 2. Select "ROM VERSION (SEL:22)" by pressing the **SELECT** button. (Refer to Fig. 1.5.1.)
 3. Press the **SET** button, and the ROM version is shown on the display.
- "xx" and "yy" appearing in Fig. 1.5.3 show the version (program number).



4. Press the **SELECT** button, and the other ROM version appears on the FDP.
5. Press the **MENU** button to quit indication of ROM version menu.

4. For quitting the menu, press the **MENU** button.

1.5.6 Showing and resetting emergency records

1. Set to service mode. (Refer to 1.5.2.)
2. Select "ADJUST MODE (SEL:23)" by pressing the **SELECT** button. (Refer to Fig. 1.5.1.)
3. Press the **SET** button, and the "ADJUST MODE SELECT" menu appears on the display.

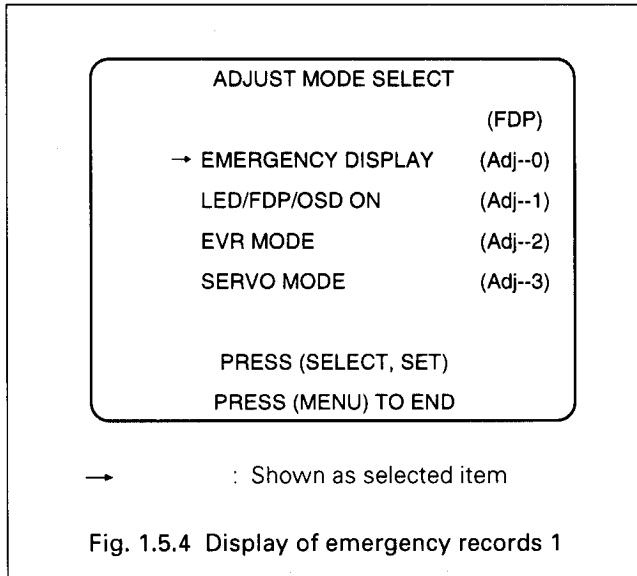


Fig. 1.5.4 Display of emergency records 1

4. Select "EMERGENCY DISPLAY (Adj-0)" by pressing the **SELECT** button.
5. Press the **SET** button, and the last and the second last emergency records are shown on the display at a time. For detail of emergency record, refer to Table 1.5.2.

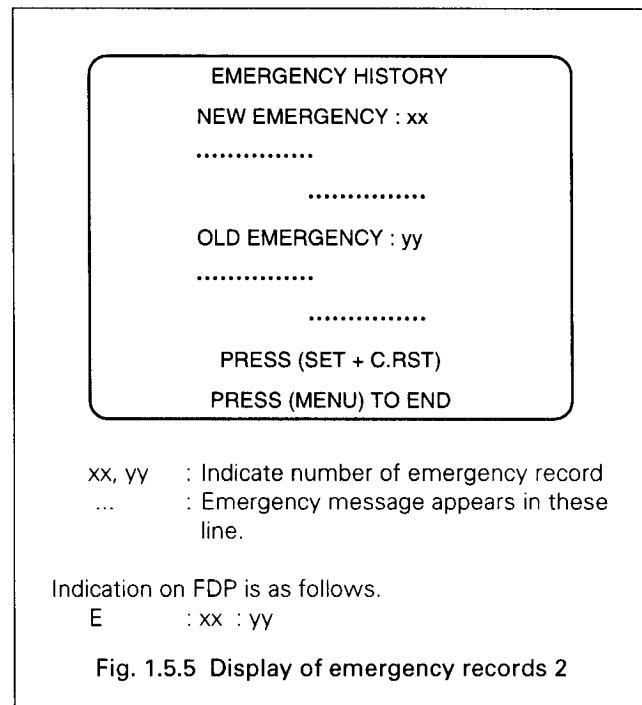


Fig. 1.5.5 Display of emergency records 2

6. For resetting emergency records, take cassette tape out of the VTR first and press the **SET** and **C. RESET** buttons together as the display is showing emergency record.
7. Press the **MENU** button to quit showing and resetting emergency records.

Emergency No.	Symptom	Monitoring point	Monitoring mode	Following mode
01	Although loading motor runs for 8 seconds or more, the mode is not shifted to the following.	IC601, pins 14, 15, 16	In Loading	Power OFF
02	Although loading motor runs for 8 seconds or more, the mode is not shifted to the following.	IC601, pins 14, 15, 16	In Unloading	Power OFF
03	TU REEL FG is not input for more than 4 seconds.	IC601 pin 22	In REC/PLAY/FF/REW/ SEARCH FF or REW	STOP, then Power OFF
04	DRUM FF is not input for more than 3 seconds.	IC601 pin 71	In REC/PLAY/SEARCH FF or REW	STOP
06	CAPSTAN FG is not input for more than 1 second.	IC601 pin 69	In REC/PLAY/FF/REW/ SEARCH FF or REW	STOP, then Power OFF
07	Power failure by shortcircuit in power supply.	IC601 pin 74 When voltage is lowerthan 1.7 V approx.	Whenever set is turned on.	Power OFF

Table 1.5.2 Detail of emergency records

1.5.7 Self-diagnosing FDP

1. Set to service mode. (Refer to 1.5.2.)
2. Select "ADJUST MODE (SEL:23)" by pressing the **SELECT** button. (Refer to Fig. 1.5.1.)
3. Press the **SET** button, and the "ADJUST MODE SELECT" menu appears on the display.

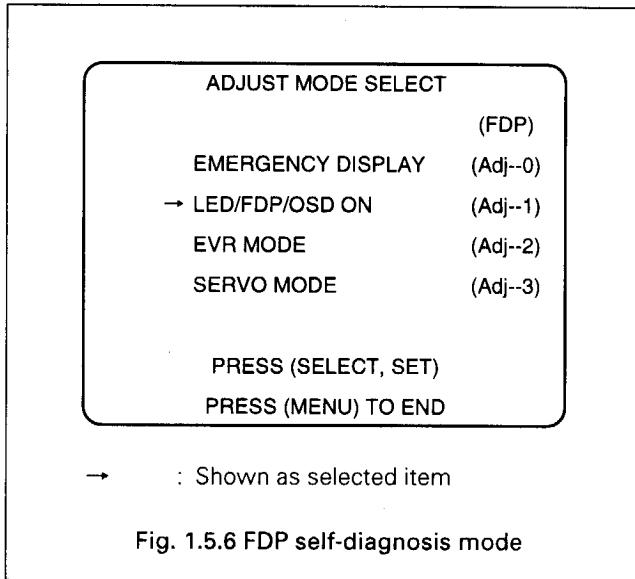


Fig. 1.5.6 FDP self-diagnosis mode

4. Select "LED/FDP/OSD ON (Adj-1)" by pressing the **SELECT** button.
5. Press the **SET** button, and the VTR enters the FDP self-diagnosis mode with all FDP's being turned on.
6. If there is any FDP which is still off, it is thinkable that the FDP is faulty or there is a failure in the FDP driver circuit.
7. Press the **MENU** button to quit the FDP self-diagnosis mode.

1.5.8 Setting position of on-screen display

1. Set to service mode. (Refer to 1.5.2.)
2. Select "ADJUST MODE (SEL:23)" by pressing the **SELECT** button. (Refer to Fig. 1.5.1.)
3. Press the **SET** button, and the "ADJUST MODE SELECT" menu appears on the display. (Refer to Fig. 1.5.6.)
4. Select "LED/FDP/OSD ON (Adj-1)" by pressing the **SELECT** button. (Refer to Fig. 1.5.6.)
5. Press the **SET** button, and the VTR enters the on-screen display position setting mode. (This mode also serves as the FDP self-diagnosis mode with all FDP's being turned on.)

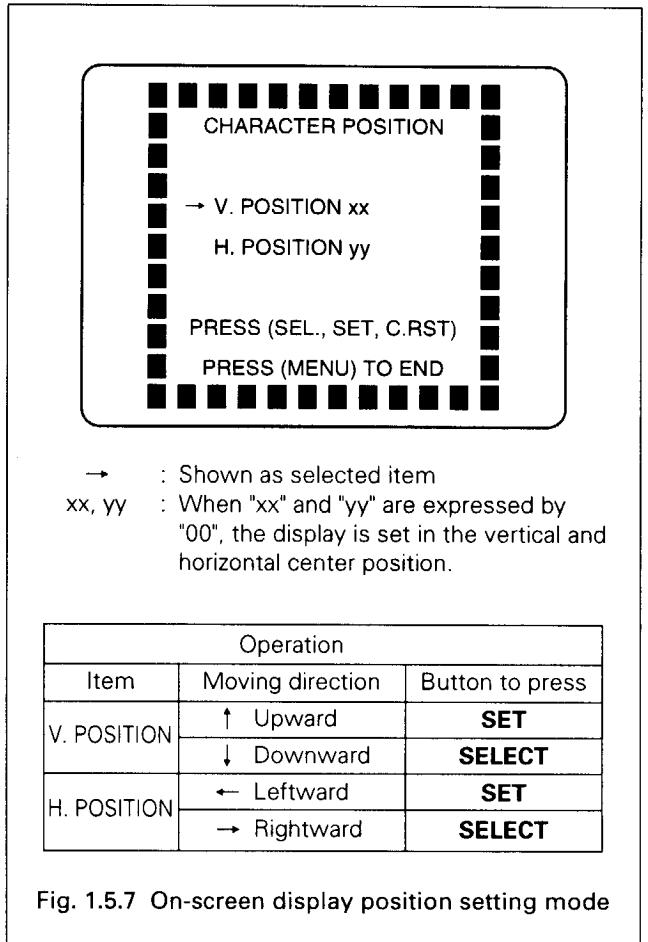


Fig. 1.5.7 On-screen display position setting mode

6. Select "V. POSITION" or "H. POSITION" by pressing the **C. RESET** button.
7. Press the **SELECT** button to move the on-screen display (the whole display shown in Fig. 1.5.7) downwards or rightwards.
8. Press the **SET** button to move the on-screen display (the whole display shown in Fig. 1.5.7) upwards or leftwards.
9. Press the **MENU** button to quit the on-screen display position setting mode.

1.5.9 Setting EVR adjustment mode

1. Set to service mode. (Refer to 1.5.2.)
2. Select "ADJUST MODE (SEL:23)" by pressing the **SELECT** button. (Refer to Fig. 1.5.1.)
3. Press the **SET** button, and the "ADJUST MODE SELECT" menu appears on the display. (Refer to Fig. 1.5.4.)
4. Select "EVR MODE (Adj-2)" by pressing the **SELECT** button.
5. Press the **SET** button for more than 2 seconds, and the VTR enters the EVR adjustment mode.

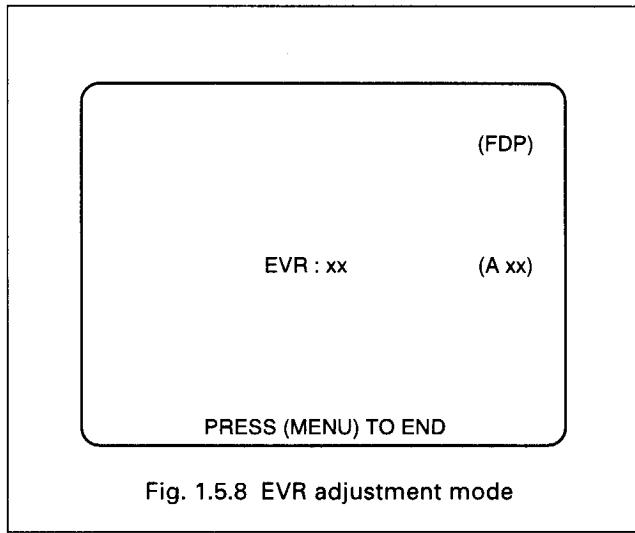


Fig. 1.5.8 EVR adjustment mode

6. Press the **C. RESET** button to change "EVR No." In the display, "xx" expresses EVR No.
7. Change setting data of the selected EVR with the **SET** (to increase) and **SELECT** (to decrease) buttons.
8. Press the **MENU** button to quit the EVR adjustment mode.

EVR No.	Adjusting item	Reference section
02	REC color level	3.4.6
11	Y level	3.4.1/3.4.5
12	Carrier	3.4.4
13	Deviation	3.4.4
14	White/Dark clip	3.4.2
15	Sub-emphasis	3.4.3

Table 1.5.3 Table of EVR adjustment mode

1.5.10 Executing slow tracking preset adjustment mode

1. Set to service mode. (Refer to 1.5.2.)
2. Select "ADJUST MODE (SEL:23)" by pressing the **SELECT** button. (Refer to Fig. 1.5.1.)
3. Press the **SET** button, and the "ADJUST MODE SELECT" menu appears on the display. (Refer to Fig. 1.5.4.)
4. Select "SERVO MODE (Adj-3)" with the **SELECT** button. (Refer to Fig. 1.5.4)
5. Press the **SET** button to enter the VTR into the SERVO adjustment mode.

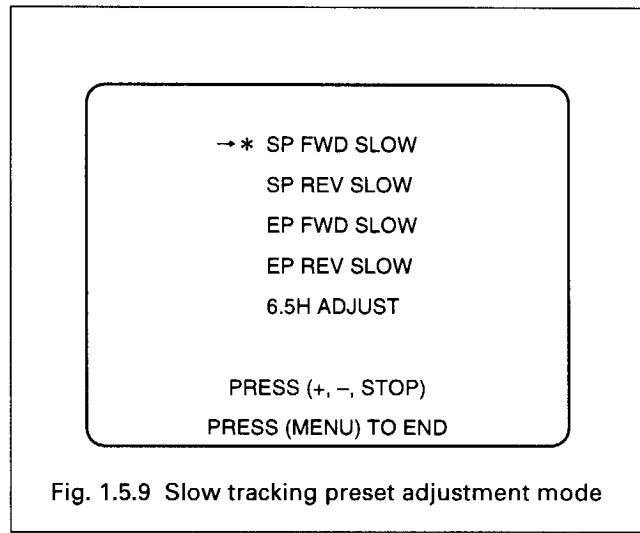


Fig. 1.5.9 Slow tracking preset adjustment mode

6. When the VTR enters a slow playback mode while playing back a self-recorded tape, "→" mark appears at the beginning of the item concerned to point it out on the display.
7. Adjust the slow tracking preset of each item with the **TRACKING +** and **TRACKING -** buttons.
8. Press the **STOP** button to record the adjustment value in the memory with indication by asterisk at the beginning of the corrected item.

Note: If the playback mode is changed to another mode before the **STOP** button is pressed, the adjustment value is not recorded in the memory.

9. Press the **MENU** button to quit the slow tracking preset adjustment mode.

1.5.11 Executing switching point adjustment mode

1. Set to service mode. (Refer to 1.5.2.)
2. Select "ADJUST MODE (SEL:23)" by pressing the **SELECT** button. (Refer to Fig. 1.5.1.)
3. Press the **SET** button, and the "ADJUST MODE SELECT" menu appears on the display. (Refer to Fig. 1.5.4.)
4. Select "SERVO MODE (Adj-3)" with the **SELECT** button. (Refer to Fig. 1.5.4.)
5. Press the **SET** button to enter the VTR into the SERVO adjustment mode. (Refer to Fig. 1.5.9.)
6. When the MHP alignment tape is played back, "→" mark appears at the beginning of "6.5H ADJUST" and the VTR enters the switching point adjustment mode at the same time.

Note: *If a cassette tape that has no safety tab (erasure prevention tab) and something has been recorded on in the standard mode is played back, the VTR enters the adjustment mode. Carefully check the cassette tape before playing it back*

7. Press the **TRACKING +** and **TRACKING -** buttons together to start automatic adjustment.
8. With finish of adjustment, operation automatically stops and an asterisk appears at the beginning of "6.5H ADJUST" to inform finish of the adjustment.
9. Press the **MENU** button to quit the switching point adjustment mode.

SECTION 2

MECHANISM ADJUSTMENT

2.1 PREPARATION

2.1.1 Precautions

- (1) Disconnect AC power before soldering.
- (2) Avoid imparting stress to wires when disengaging connectors.
- (3) Determine and correct the cause of difficulty before proceeding to adjustments. Do not disturb settings unnecessarily.
- (4) Use care not to damage tabs, claws, etc during repairs.
- (5) Install the cassette housing assembly only when the mechanism is in the MECHANISM ASSEMBLING MODE position.
- (6) When installing the front panel assembly, be sure to engage the housing door with the door opener of the cassette housing assembly.
If this is omitted, the cassette door will not open at eject and the cassette can not be removed. (See SECTION 1.1.3 NOTE1)

2.1.2 Check without cassette housing assembly.

Mechanism operations can be observed easily by removing the cassette housing assembly. Use the MECHANISM SERVICE MODE (See SECTION 1.4)

2.1.3 Manual removal of loaded tape

When the deck enters the emergency mode with cassette tape loaded and it can not be ejected by pressing the EJECT button, take out of the cassette tape according to the following procedure.

- (1) Disconnect AC power, then take out the Top cover and Front panel assembly.
- (2) Turn the loading motor on the Main deck assembly by hand in the unloading direction to where the pole base assembly (supply and take-up) is positioned below the cassette tape. At that time, pay careful attention to the tape not to get soiled with grease.
- (3) Take out 4 screws of the cassette housing assembly. (See SECTION 1.1.3)
- (4) Remove the cassette housing with slackened tape and guard panel of cassette.
- (5) Wind up the tape by turning the reel hub(either supply or take-up side for convenience) from the bottom of the cassette, and remove the cassette tape.

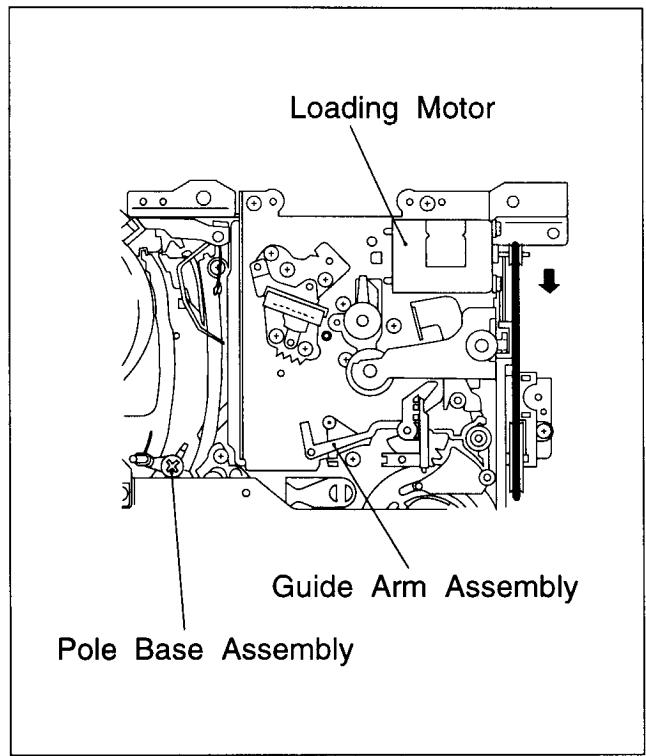


Fig. 2-1-1

2.1.4 Test Equipment

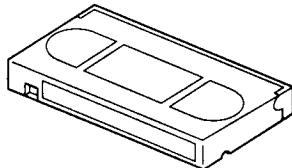
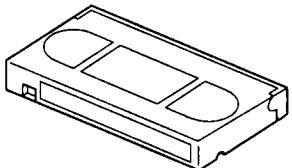
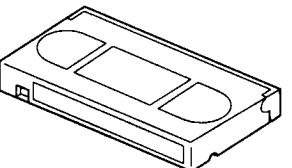
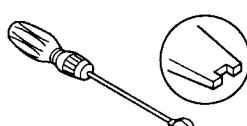
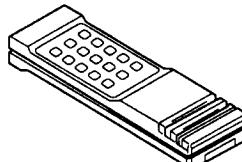
Alignment tape (SP) MHP	Alignment tape (EP) MHP-L(Only CH-1 recording)	Cassette torque meter PUJ42881	A/C head positioning tool PTU94010
			
Roller driver PTU94002	Presetting unit PGJ05050	Grease KYODO-SH-P	
			

Table 2-1-1 Test equipment

2.2 MAIN MECHANISM PARTS

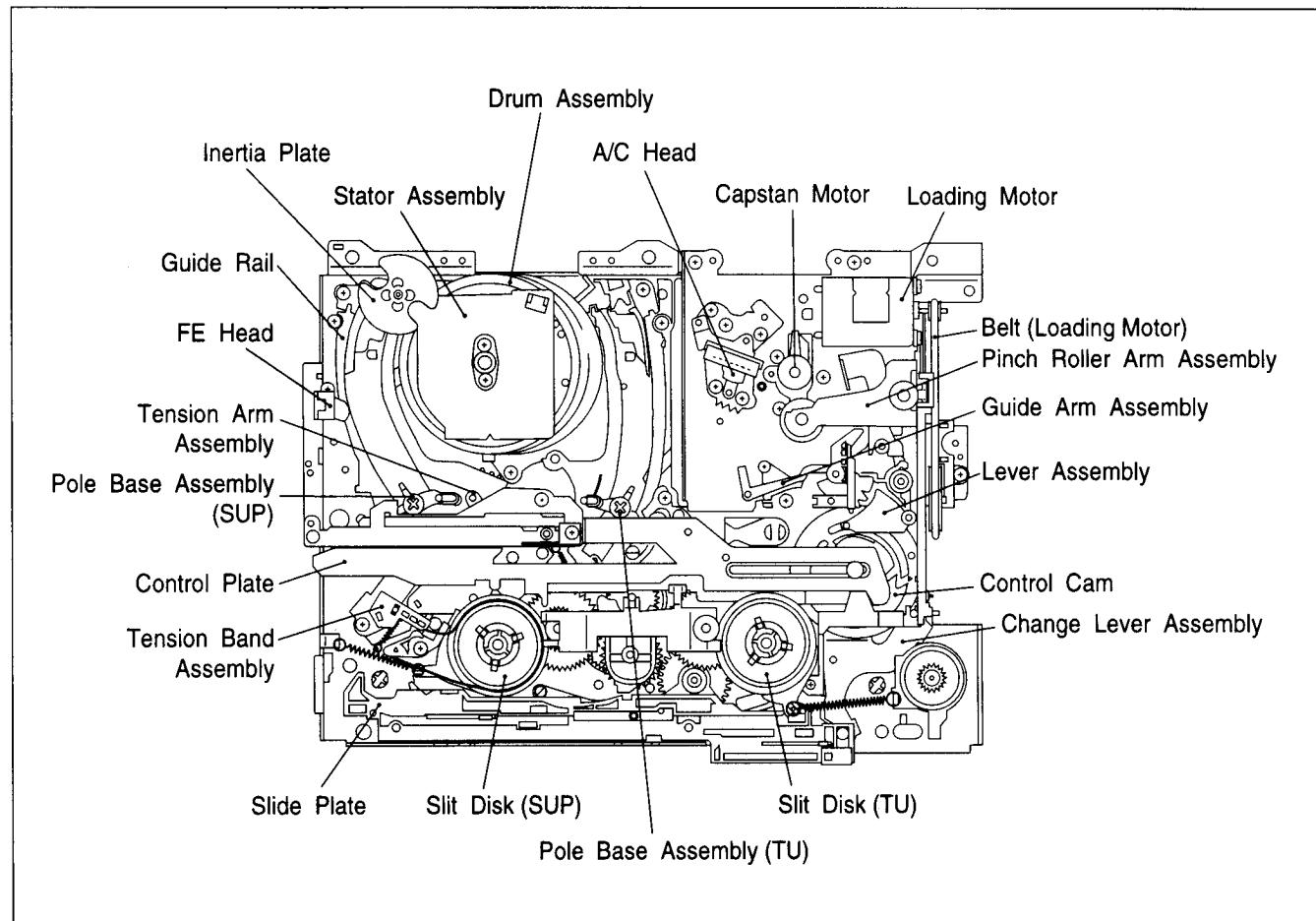


Fig. 2-2-1 Top view of main deck

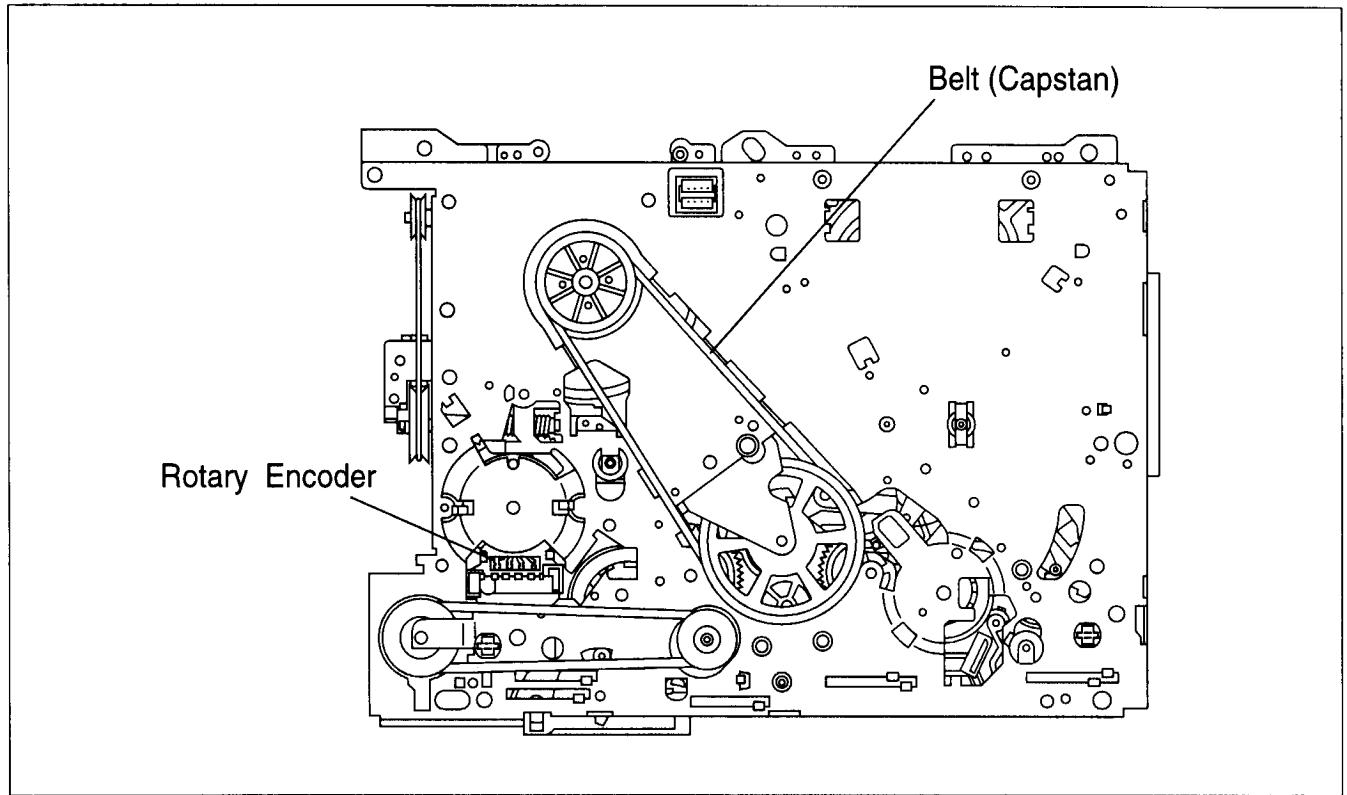


Fig. 2-2-2 Bottom view of main deck

2.2.1 Cleaning

Periodic cleaning of the tape transport system is desirable, but usually not feasible in practice. Therefore, perform cleaning when a set is brought in for repairs or maintenance. Contamination of the video heads, tape guides and brush can detract from playback picture quality and in extreme cases, even damage the tape. For cleaning, use a finemesh cotton cloth (about the texture of a white dress-shirt) moistened in alcohol. It is recommended to also clean the tape tension posts and capstan.

- To clean the video heads, press the moistened quality paper gently against the upper drum with fingertip and turn the drum counterclockwise by hand.
- Do not use a vertical stroke, as this may damage the heads.

2.2.2 Lubrication

Oil and grease do not normally require periodic replenishing. Apply only when replacing lubricated parts (also clean and replace lubrication of mating parts if soiled). For parts and points to apply oil and grease, refer to the exploded views of the mechanism assembly. Before oiling, clean with alcohol. Apply one or two drops of oil. Avoid excess oil.

1. Table 2-2-1 indicates the oil and grease used in this set. Use these or recommended locally available equivalents.

Category	Part No.
Oil	COSMO-HV56
Grease	KYODO-SH-P

Table 2-2-1

2. Grease is not required for a replacement cassette housing assembly, as this has been applied at the factory.

NOTE : Stir grease that has been stored for an extended period.

2.3 INSPECTION AND MAINTENANCE

This product employs rotary and moving parts which wear out in the course of usage. Periodic inspection, cleaning, lubrication and maintenance are therefore important for ensuring maximum performance.

2.3.1 Suggested servicing schedule for main components

The following table indicates the suggested period for such service measures as cleaning, lubrication and replacement. In practice, the indicated periods will vary widely according to environmental and usage conditions. However, the indicated components should be inspected when a set is brought for service and the maintenance work performed if necessary. Also note that rubber parts may deform in time, even if the set is not used.

	Parts Name	Standard service period			
		500	1000	1500	2000
Tape transport system	Upper drum assembly	★	○	★	●
	A/C head	★	○	★	●
	Pinch roller arm assembly	★	○	★	●
	Full erase head assembly				
	Tension arm assembly	★			
	Drum assembly	★	★	★	●
	Capstan motor (Shaft)				
	Guide arm assembly				
Driving system	Capstan motor		○		●
	Capstan Belt		○		●
	Mode motor Belt		○		●
	Mode motor		○		●
	Slit stand (SP.)				●
	Slit stand (TU.)				●
	Clutch unit (SP., TU.)		○		●
	Worm gear assembly				●
	Control plate				●
	Slide plate				●
Other	Brekes		○		●
	Brush assembly		○		●
	Tension band assembly				●
	Rotary encoder		○		●
	Head cleaner		●		●

● : Replacement

★ : Cleaning

○ : Check and Replace if necessary

Table 2-3-1

NOTE : Check accumulated operating time by service mode (Drum hour meter).

2.4 DISASSEMBLY/ASSEMBLY PROCEDURE OF MECHANISM

2.4.1 Precaution before disassembling mechanism

This mechanism has an exclusive operation mode provided for disassembling and installation of the mechanism (MECHANISM ASSEMBLING MODE), and it is suggested to set the mechanism to this mode before disassembly and installation. The exclusive mechanism operation mode is not generally used and becomes available by manual setting only. Then this procedure starts with the condition that the cabinet parts and cassette housing assembly have been removed.

2.4.2 How to set the exclusive mechanism operation mode (MECHANISM ASSEMBLING MODE)

- (1) Turn the loading motor belt by hand.
- (2) Confirm that the hole of the control cam are aligned to the deck hole as shown in Fig.2-4-1.

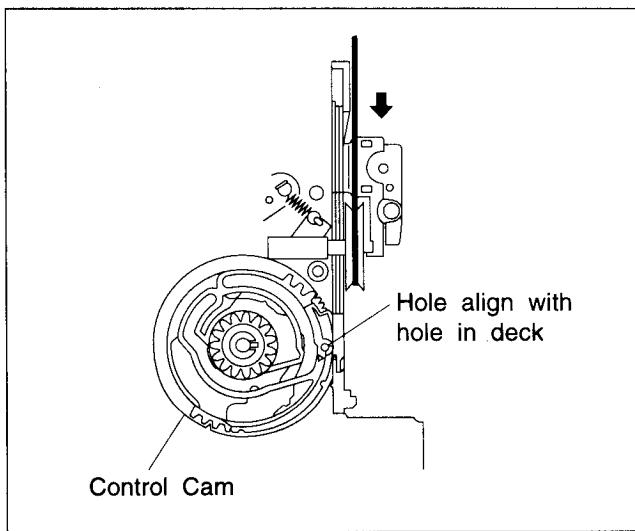


Fig. 2-4-1

2.5 MAIN PARTS REPLACEMENT OF MECHANISM

2.5.1 Pinch Roller Arm Assembly

- (1) Remove the slit washer.
- (2) Tilt up the pinch roller assembly in direction of arrow.

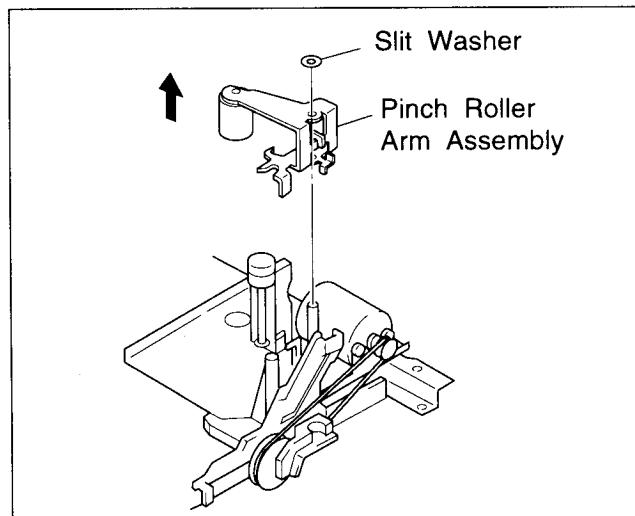


Fig.2-5-1

2.5.2 A/C Head

1. Removal

- (1) Take out 2 screws (S19).
- (2) Remove the A/C head with head base.

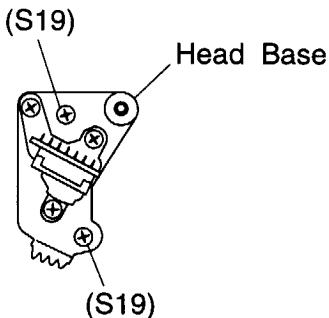


Fig.2-5-2

- (3) When replacing the A/C head only, remove 3 screws (S8), use care not to misplace the 4 springs.

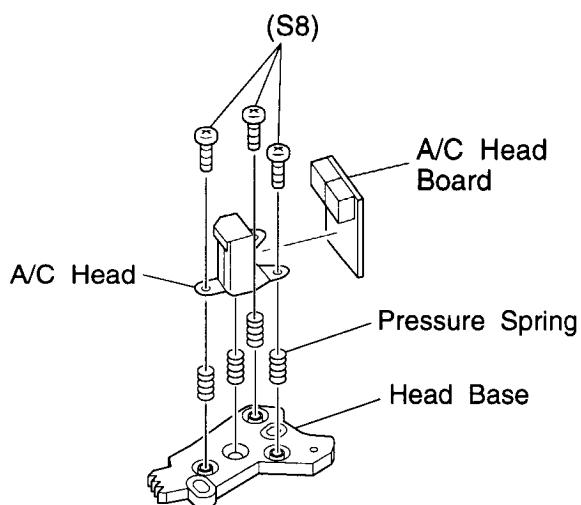


Fig.2-5-3

2. Installation

- (1) Temporarily set A/C head height as indicated in Fig. 2-5-4.
- (2) Clean the A/C head and perform the following adjustment.
 - Interchangeability adjustment (see 2.7.1 to 2.7.4)

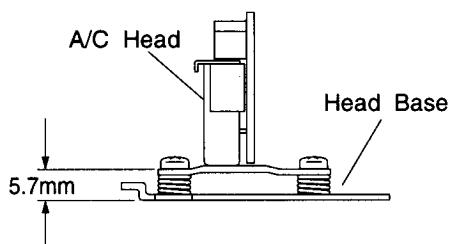


Fig.2-5-4

NOTES:

- It is very important to correctly adjust the control pulse and audio signal in addition to the mechanical tape path.

2.5.3 Pinch Plate

1. Removal

- (1) Disengage 2 claws, then remove the pinch plate.

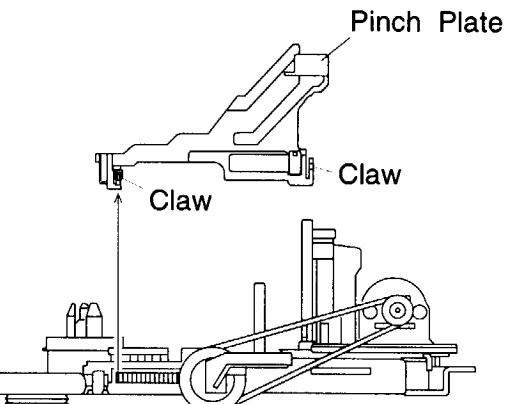


Fig.2-5-5

2. Installation

- (1) When installing pinch plate, align rack of pinch plate and triangle mark of control cam as indicated in Fig.2-5-6.

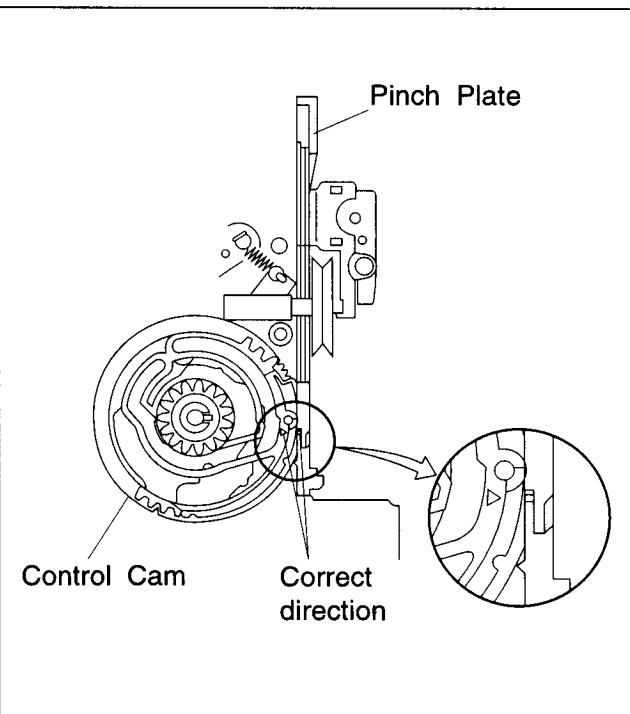


Fig. 2-5-6

2.5.4 Loading Motor

- (1) Disengage the belt between loading motor and worm gear.
- (2) Take out 2 screws (S14), 1 screw (S18) and the motor guide then remove the loading motor.

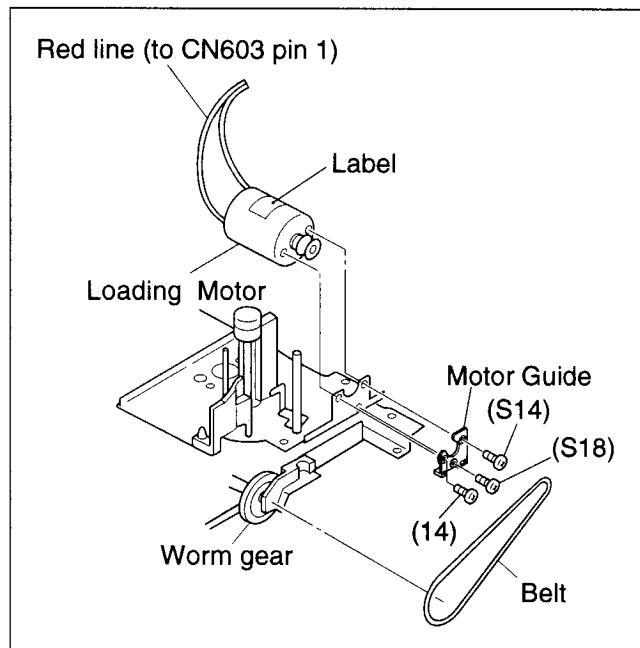


Fig.2-5-7

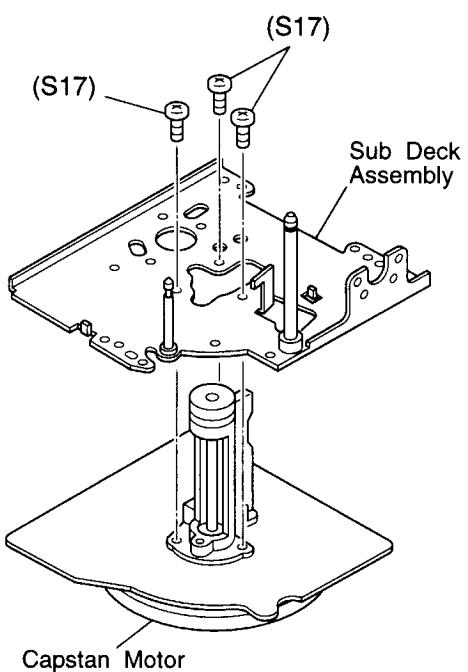


Fig.2-5-9

2.5.5 Lever Assmebly, Sub Deck Assembly & Capstan Motor

- (1) Take out 1 slit washer,then remove the lever assembly.
- (2) Disengage the belt(capstan motor) from bottom of mechanism assembly first as indicated in Fig.2-5-10.
- (3) Take out 2 screws (S15), 1 screw (S18) and remove the sub deck assembly as indicated in Fig.2-5-8.
- (4) Take out 3 screws (S17) and remove the capstan motor from the sub deck assemby as indicated in Fig.2-5-9.

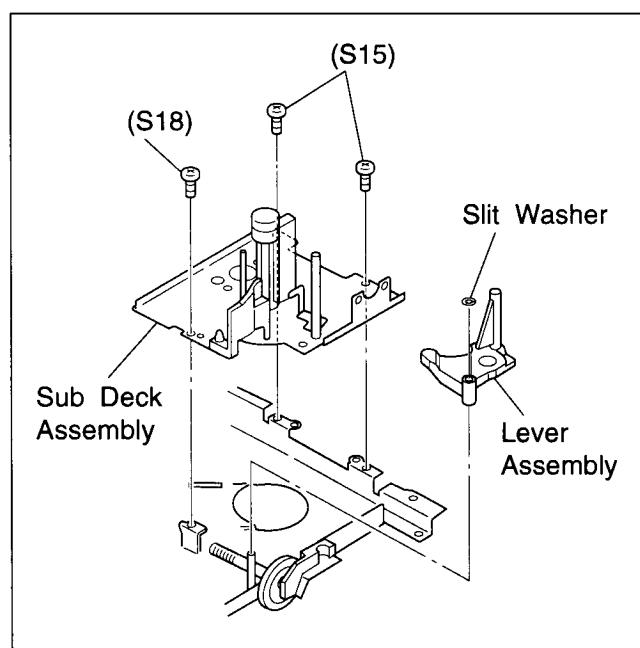


Fig.2-5-8

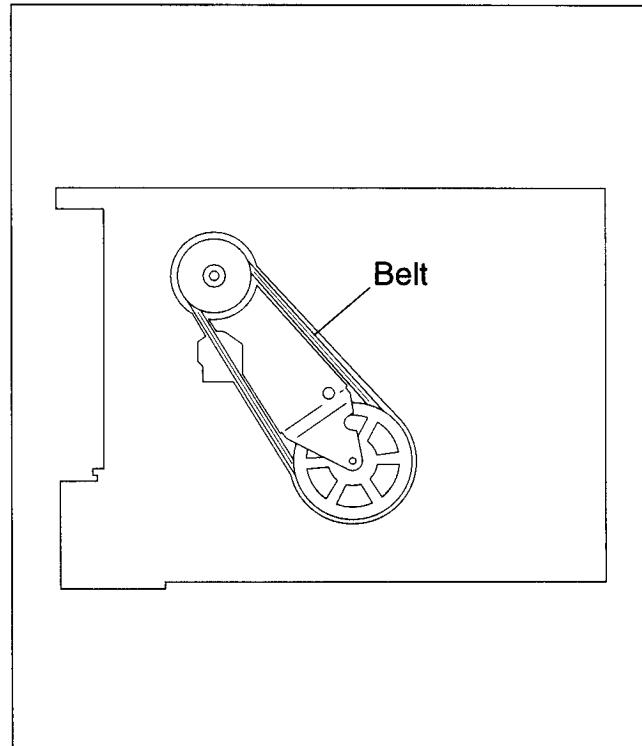


Fig.2-5-10

2.5.6 Control Bracket

- (1) Take out 1 screw (S16) and 1 screw (S20).
- (2) Remove the control bracket and the earth plate.

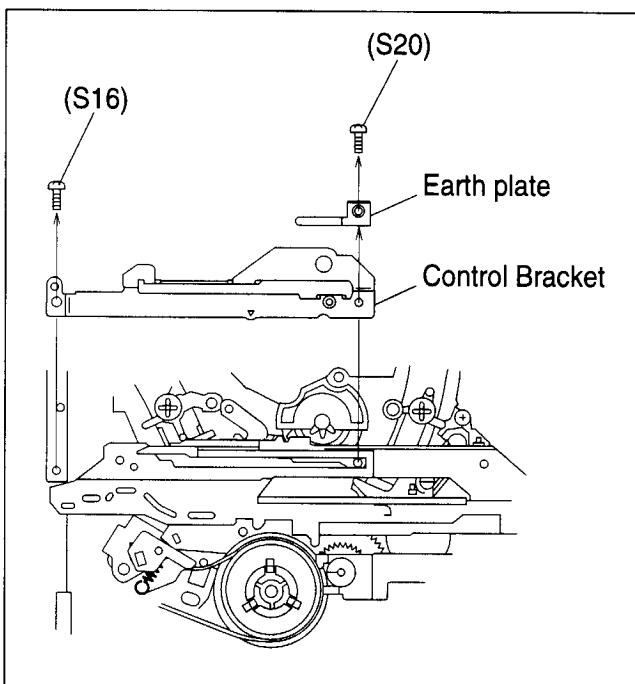


Fig.2-5-11

2.5.7 Reel Bracket,Slit disk (take-up) & control Bracket-2

- (1) Take out 2 slit washers.
- (2) Remove the reel bracket and slit disk(take-up).
- (3) Take out 1 screw (A) and remove the control bracket-2.

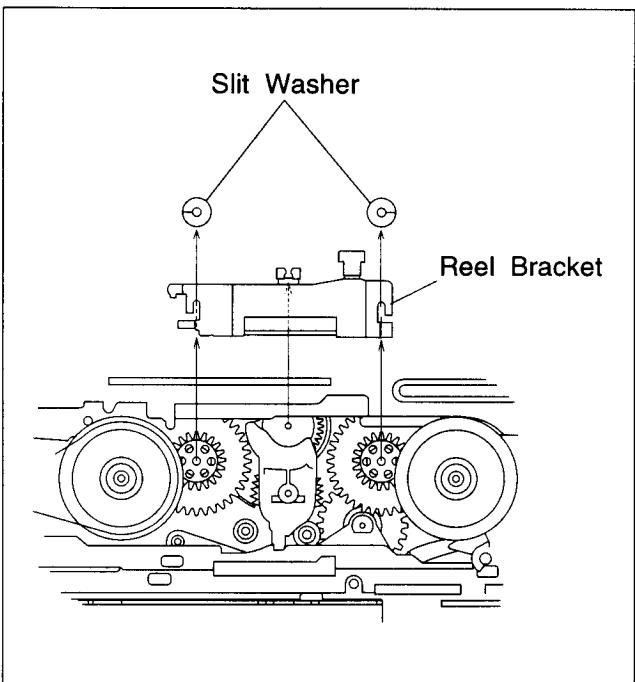


Fig.2-5-12

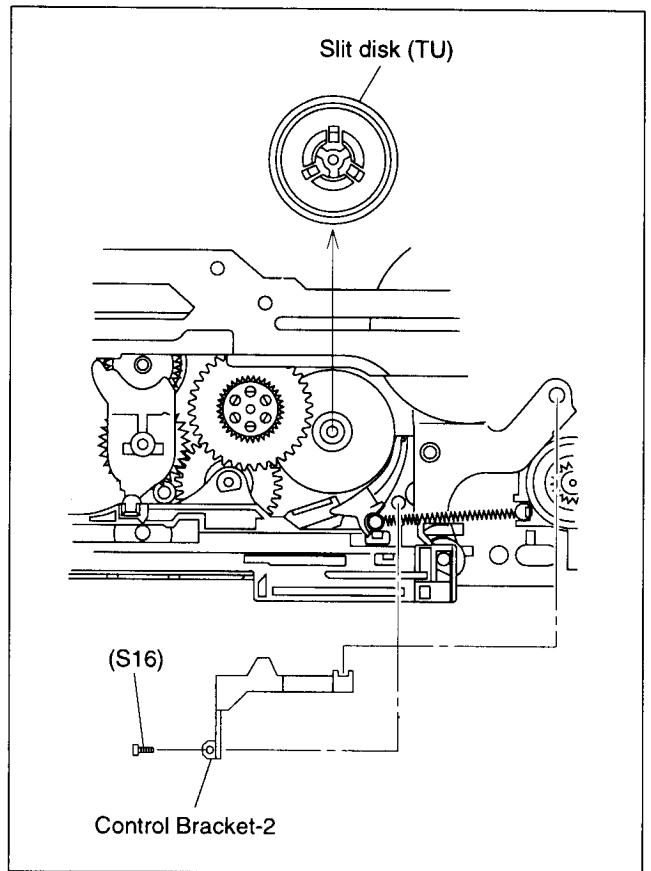


Fig.2-5-13

2.5.8 Control Plate

- (1) Take out 1 slit washer.
- (2) Disengage 2 claws and remove the control plate.

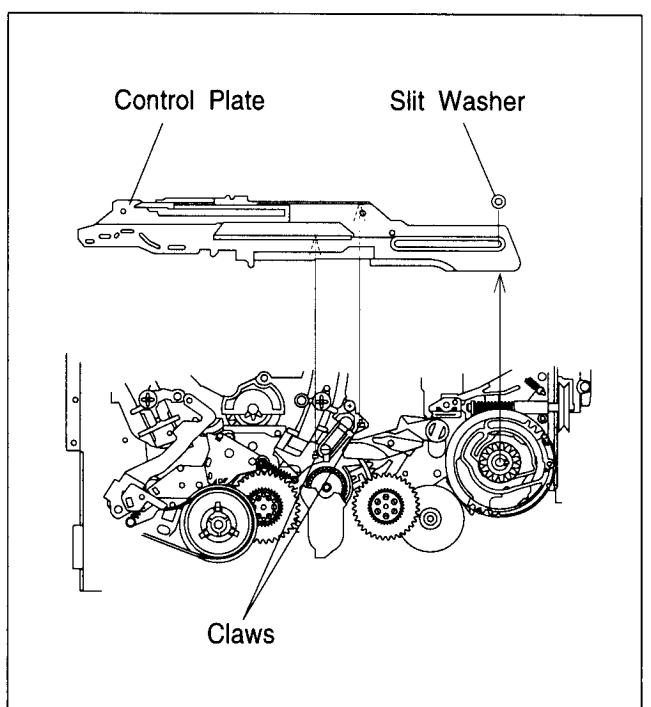


Fig.2-5-14

2.5.9 Sub Brake(take-up),Control Cam

- (1) Disengage 1 spring **a** and 1 claw then remove the sub brake (take-up).
- (2) Disengage 1 claw and remove the control cam.

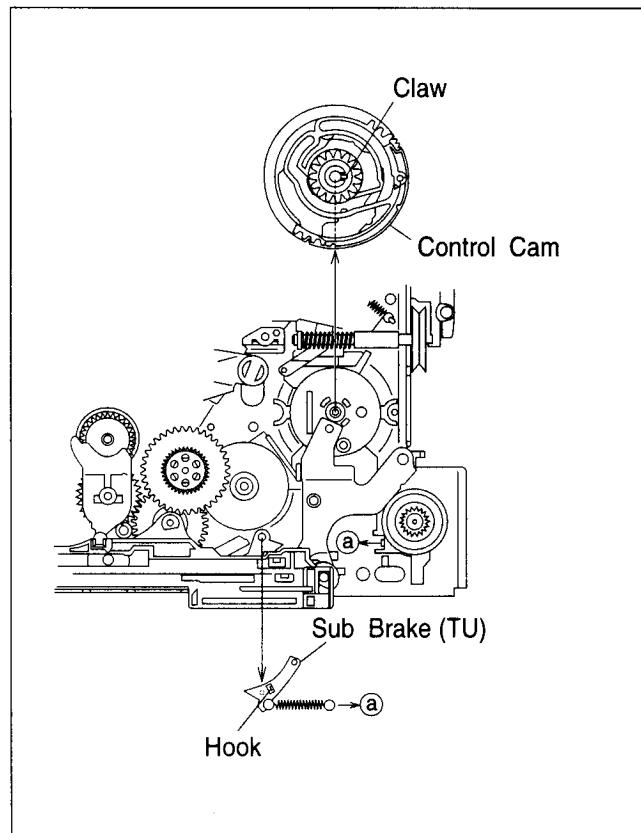


Fig.2-5-15

2.5.10 Slide Plate

- (1) Disengage 7 claws from bottom of the mechanism assembly and remove the slide plate.

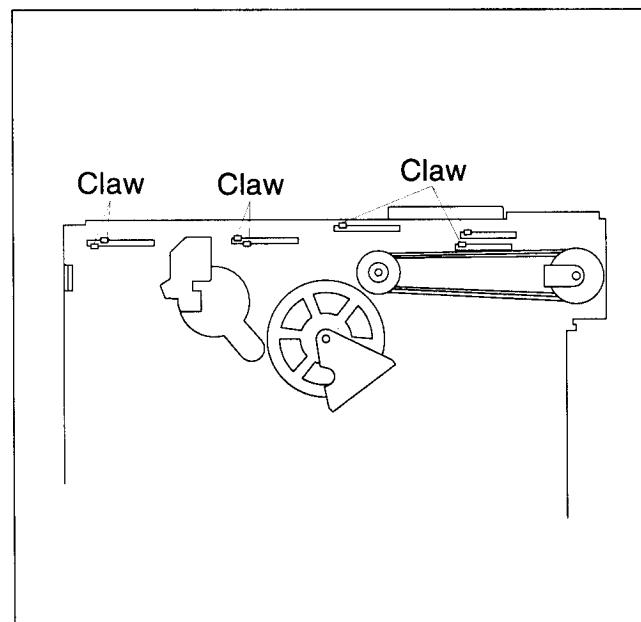


Fig. 2-5-16

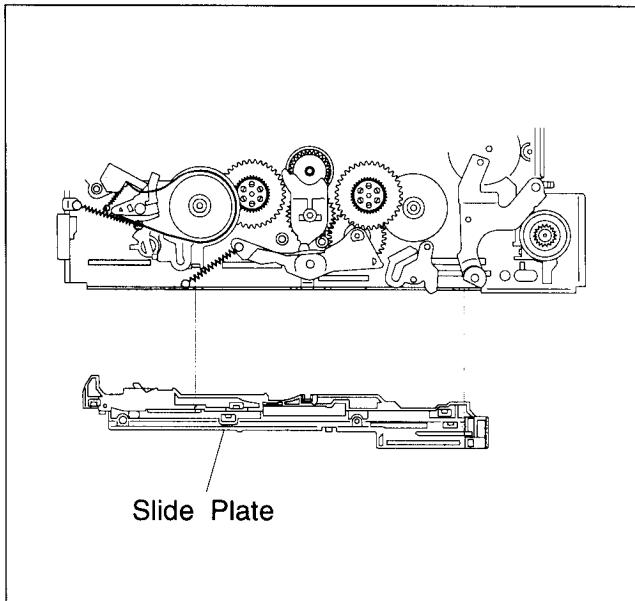


Fig. 2-5-17

2.5.11 Change Lever,Rotary Encoder

- (1) Remove the change lever.
- (2) Disengage 2 claws and remove the rotary encoder.

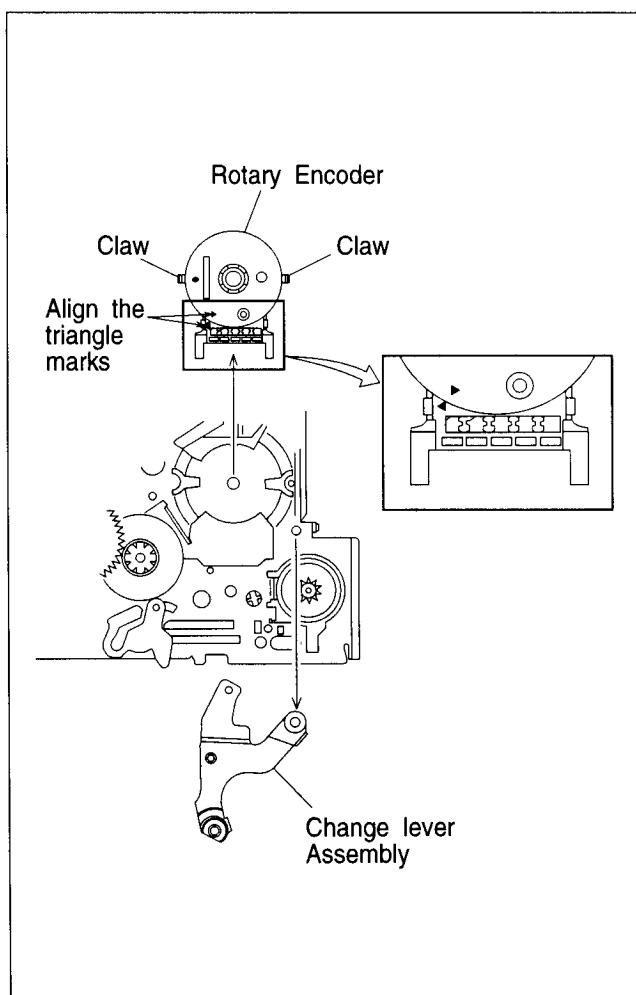


Fig. 2-5-18

2.5.12 Sub Brake (supply),Tension Band Assembly, Tension Arm Assembly, Take-up Lever Assembly,Slit Disk(supply)

- (1) Disengage 1 spring **a**.
- (2) Disengage 1 claw and remove the sub brake (supply).
- (3) Take out 1 screw (S15),spring **c** and slit washer.

- (4) Remove the tension arm assembly with tension band assembly.
- (5) Disengage 1 spring **b** and remove the take-up lever assembly.
- (6) Remove the slit disk(supply).

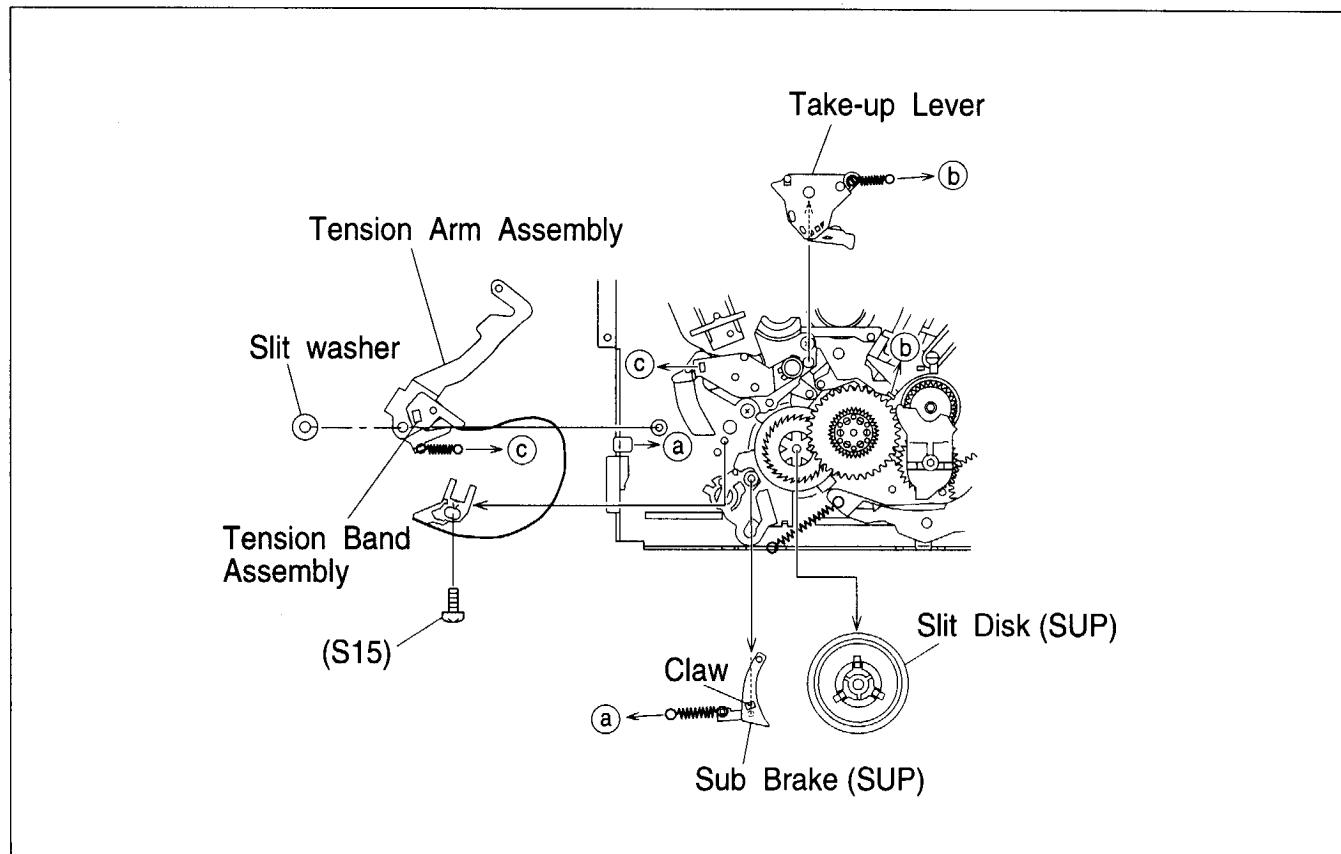


Fig. 2-5-19

2.5.13 Take-up Head,Tension Arm Lever

- (1) Remove the take-up head and tension arm lever.

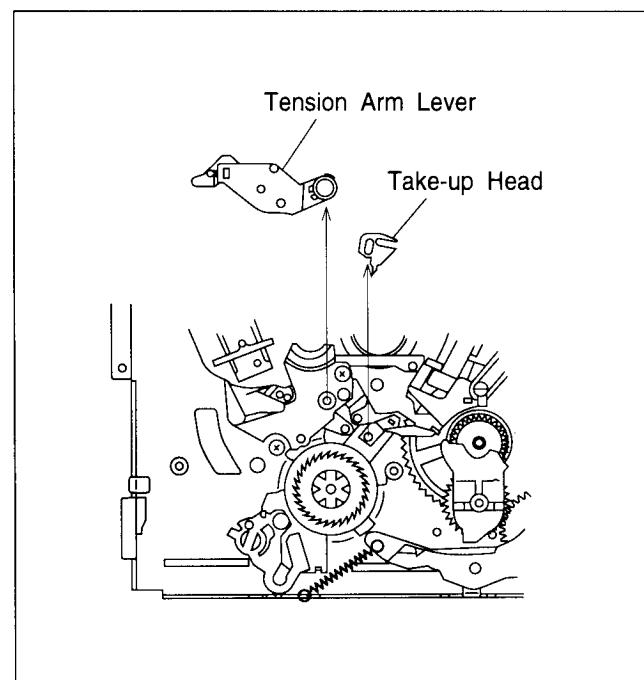


Fig.2-5-20

2.5.14 Guide Rail

- (1) Take out 4 screws (S8), 1 screw (S12) and 1 screw (S15).
- (2) Disengage 4 claws and remove the guide rail.

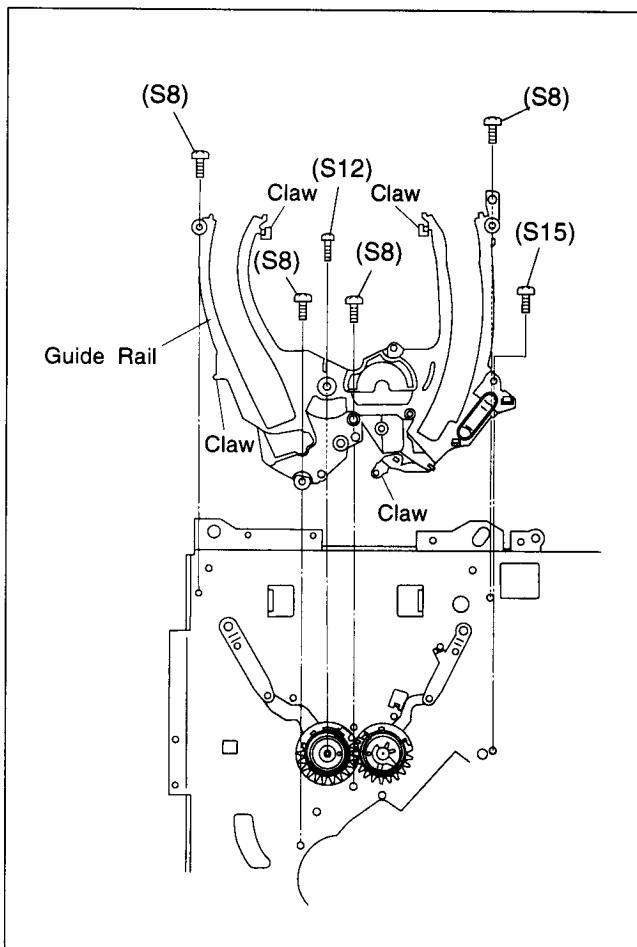


Fig. 2-5-21

2.5.15 Stator Assembly

- (1) Take out 2 screws (S10).
- (2) Raise the stator assembly in the direction indicated by the arrow to remove it (also remove the inertia roller).
- (3) Remove the flat cable.
- (4) To reinstall, first secure the flat cable, then insert 2 screws (A).
- (5) After reinstalling, be sure to perform PB switching point adjustment (See SECTION 3 ELECTRICAL ADJUSTMENT).

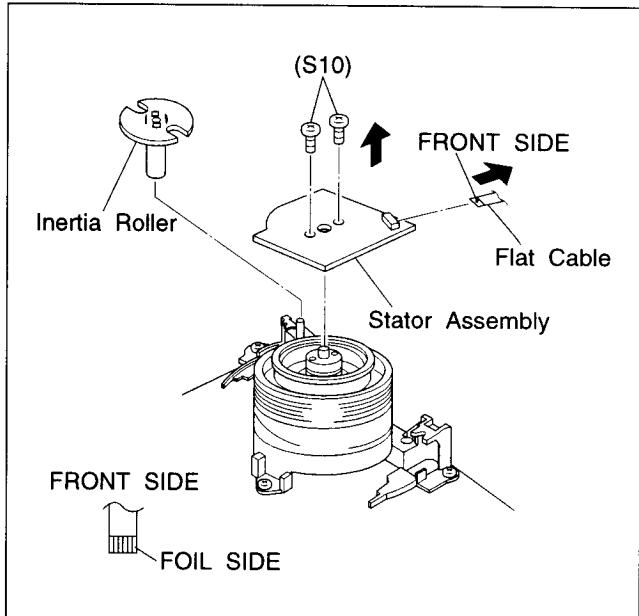


Fig. 2-5-22

NOTE : When refitting the connector, check that the flat wire is inserted correctly.

2.5.16 Rotor Assembly

- (1) Remove the stator assembly.
- (2) Take out 2 screws (S11) and remove the rotor assembly.

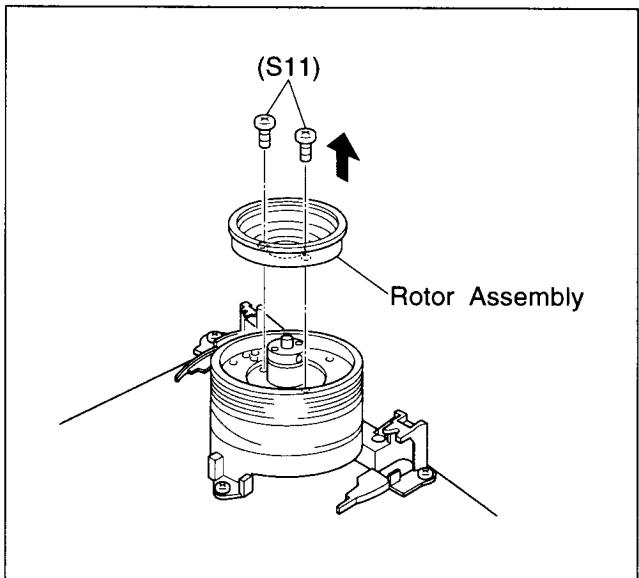


Fig. 2-5-23

- (3) Align the upper drum assembly and rotor assembly phase as indicated in Fig.2-5-24.
- (4) Overlap holes (a) of the upper drum assembly with holes (b) of the rotor assembly and secure with 2 screws (B) as indicated in Fig.2-5-23.

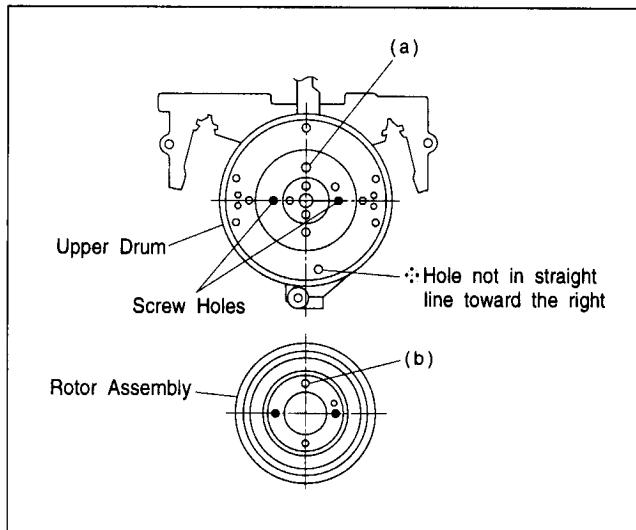


Fig. 2-5-24

2. Installation

- (1) Use an air brush to clean the lower drum assembly and the coil section of the new upper drum assembly.
- (2) Set a new washer on the drum shaft as indicated in Fig.2-5-25.

NOTE : Be sure to use the new washer when replace the upper drum assembly.

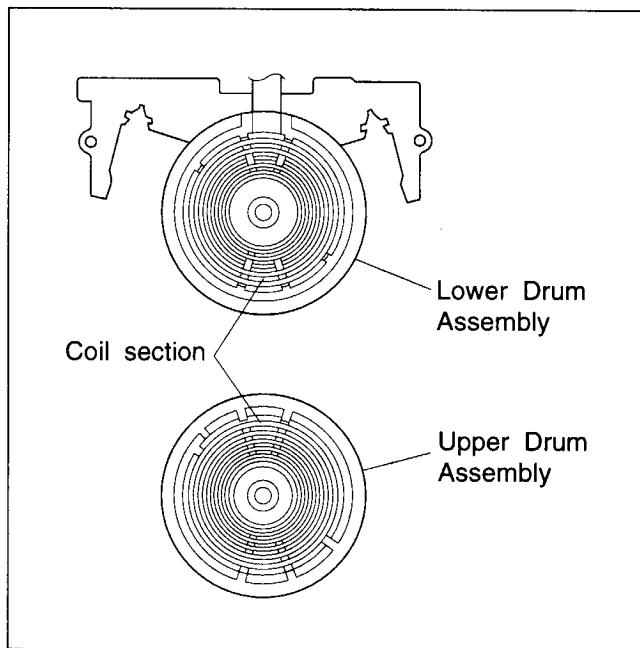


Fig.2-5-26

2.5.17 Upper Drum Assembly

1. Removal

- (1) Remove the stator assembly and rotor assembly.
- (2) Use a 1.5 mm hexagonal wrench to loosen the collar assembly screw and remove the collar assembly.
- (3) Remove the upper drum assembly and use tweezers to remove the washer.

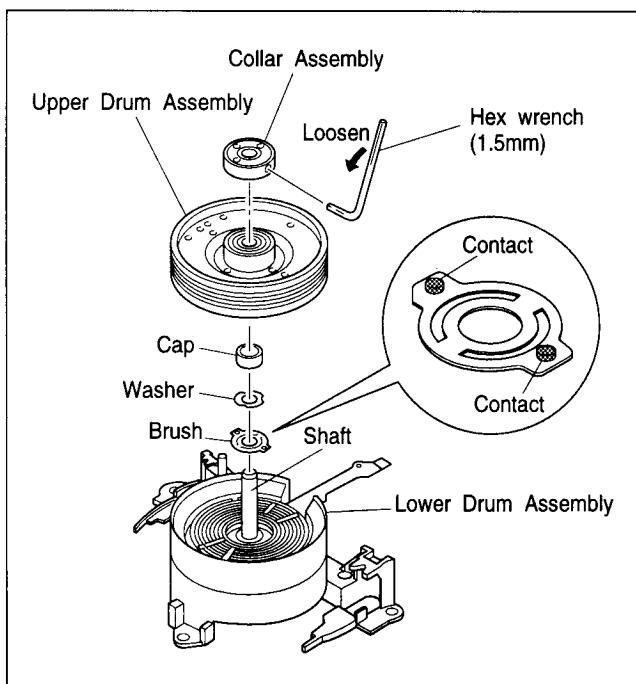


Fig. 2-5-25

- (3) Note the top and bottom of the collar assembly and determine the position as indicated in Fig.2-5-27.

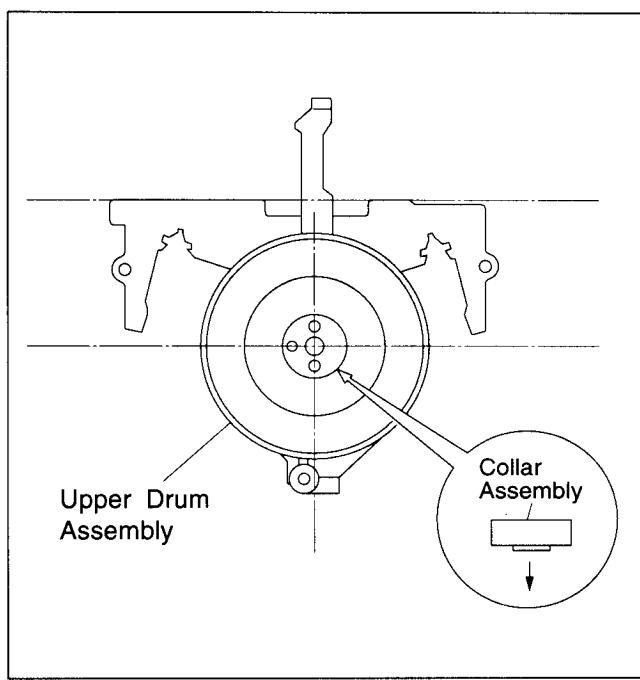


Fig.2-5-27

NOTE : If the Brush is replaced, do not apply the grease to the contacts.

- (4) While pressing the collar assembly evenly from above with your fingertips, secure the hexagonal screw.

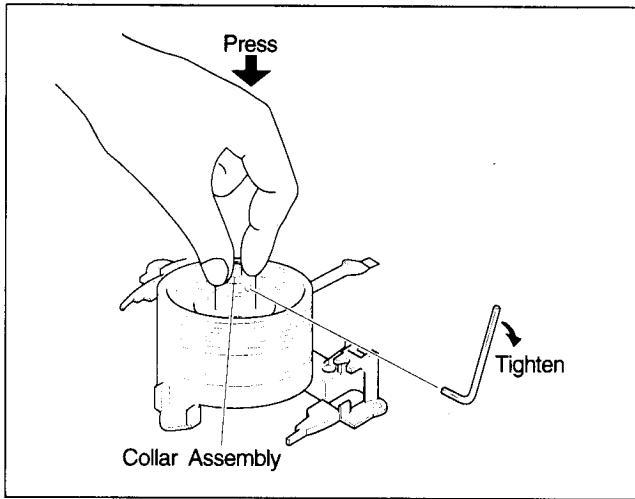


Fig.2-5-28

- (5) After installing, gently turn the upper drum by hand and confirm normal rotation.
 (6) Install the rotor assembly and stator assembly.
 (7) Clean the upper and lower drum assembly and perform the following adjustments;
- Tape pattern adjustment (see 2.7.1)
 - X-value (see 2.7.3)
 - PB switching point adjustment
 - Slow tracking preset adjustment
 - SP/EP REC color level (see 3.4.6)
 - S-VHS VIDEO EQ (see 3.4.7)
 - Audio REC FM level (see 3.6.1)

2.6 CHECK AND ADJUSTMENT OF MECHANISM PHASE

2.6.1 Precaution

The rotary encoder and syscon circuit are closely interrelated. Therefore, the rotary encoder and control cam connection determines the operations of mechanical parts such as plates, gears, brakes, etc. Correct positioning of these parts is essential for smooth tape loading and mechanical operations.

2.6.2 Loading Arm Assembly (supply,take-up)

- (1) Install the supply loading arm assembly and the take-up loading arm assembly so that their positioning markings on the respective gear face each other and the holes of their arms correspond to the holes on the main deck assembly respectively.
- (2) After setting the guide rails, engage the pole base assemblies with the tip of the loading arms respectively. Then, enter the mechanism into the unloading mode to return the pole base assemblies to the front position.
- (3) Reassemble the peripheral parts of the guide rail to its original position.

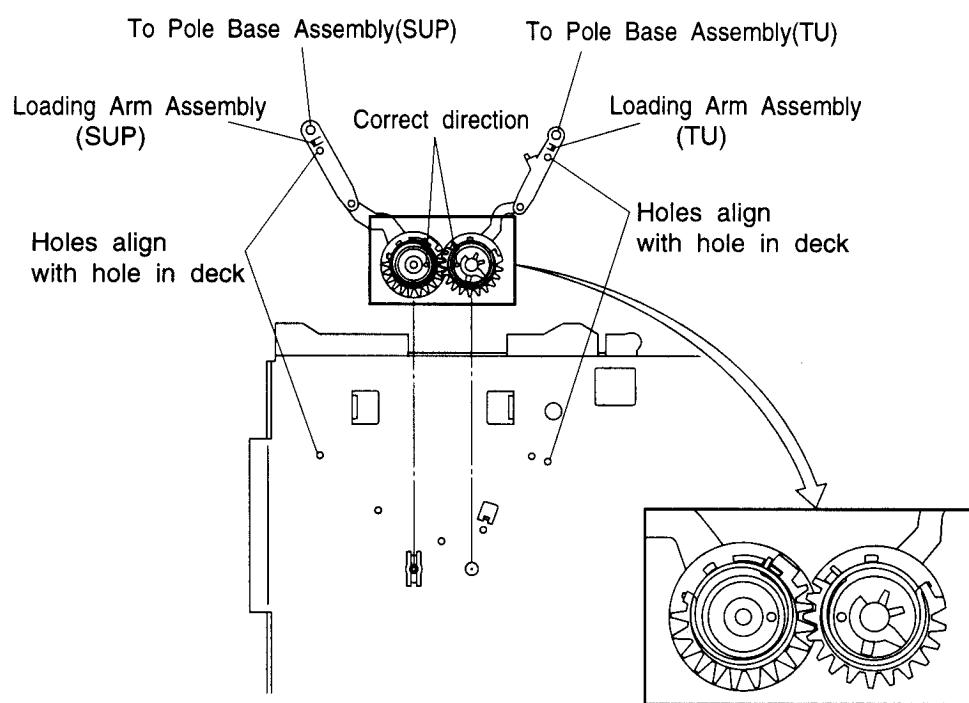


Fig. 2-6-1

2.6.3 Rotary Encoder, Change Lever, Control Cam

- (1) When reinstalling the rotary encoder, adjust its position so as to fit the triangle marks each other and push it deep until it is locked by the pawls.
- (2) When reinstalling the change lever, set it so as to make its positioning hole correspond to the hole of the main deck assembly.
- (3) When re-engaging the control cam, lower the capstan brake assembly while setting it so as to make its positioning hole correspond to the hole of the main deck assembly.

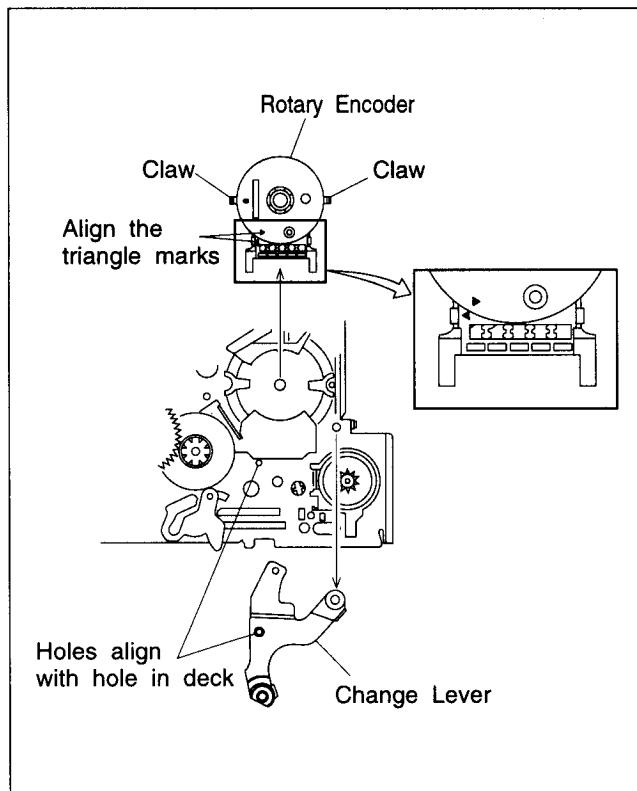


Fig. 2-6-2

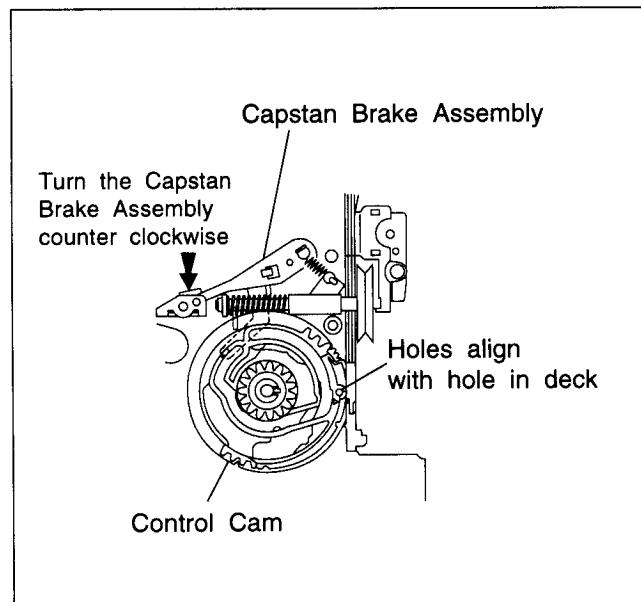


Fig. 2-6-3

2.6.4 Slide Plate

- (1) Lower both the main brake assembly (supply and take-up) until they touch the edge of the main deck assembly while reinstalling the slide plate so as to make the respective positioning holes of the main brake assembly correspond to the holes on the main deck assembly.

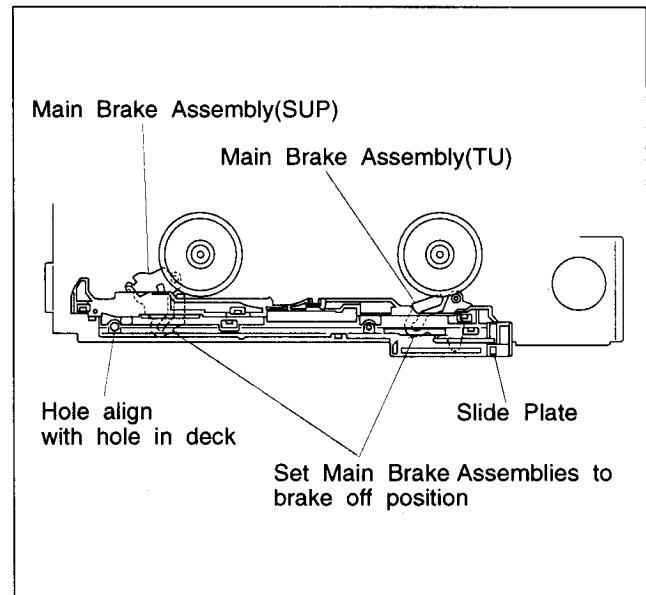


Fig. 2-6-4

2.6.5 Control Plate

- (1) Reinstall the control plate so as to set the two positioning holes of it on the holes on the main deck assembly respectively and to set the positioning hole of the take-up lever on the hole of the main deck at the same time. When adjusting the hole position of the take-up lever, use a pair of tweezers to hold and move it since it is pulled by a tension spring.
- (2) After reinstalling the control plate, fix it with the slit washer, control bracket and control bracket-2.

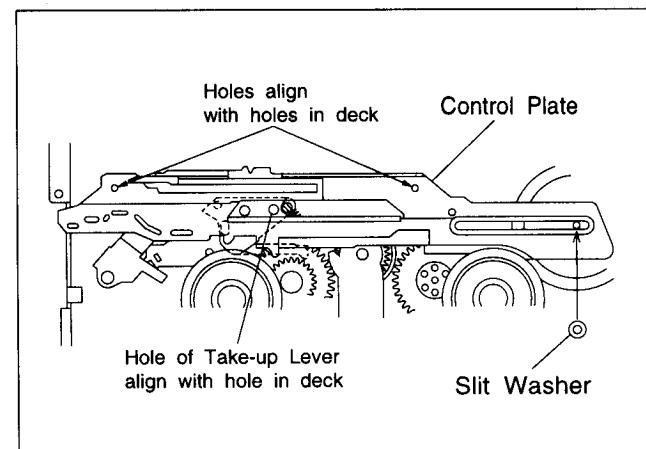


Fig. 2-6-5

2.7 TAPE INTERCHANGEABILITY ADJUSTMENT

NOTE : • This adjustment is extremely important. Perform only after replacing major components(A/C head,upper/lower drum assembly,pole base assembly,etc). It is normally not required during routine service.
 • Before using costly alignment tape,use a spare tape and confirm correct operation of the tape transport.

2.7.1 Tape pattern

- (1) Connect the oscilloscope to TP6(PB FM) on the PRE/REC board.Use TP11(D.FF) on the PRE/REC board as a trigger. Set to \ominus trigger slope of oscilloscope when MHP alignment tape is played back and set to \oplus trigger slope when MHP-L alignment tape is played back.
- (2) Playback the SP stairstep portion of the alignment tape [MHP].Confirm that the FM waveform appears as indicated in Fig.2-7-1.
- (3) Set the manual tracking position by simultaneously pressing the "-" and "+" tracking buttons.
- (4) Operate the tracking adjustment (press the tracking buttons during playback) and set for maximum playback FM waveform.
- (5) By operating the tracking button,vary the FM waveform from maximum to minimum and vice versa to confirm that the waveform varies nearly in a flat shape as shown in Fig.2-7-1.
- (6) When the FM waveform does not remain flat during this process,first slightly loosen the set screw located at the bottom of the guide rollers.Using the guide roller adjustment tool (Roller driver) ,adjust the supply and take-up guide rollers (refer to Fig.2-7-2) to obtain the correct waveform as indicated in Fig.2-7-3.
- (7) By pressing the tracking buttons several times,vary the FM waveform output from maximum to minimum (and vice versa) gradually, and confirm that the variation proceeds in flat shape, as shown in Fig.2-7-3.
- (8) Next playback the EP stairstep portion of the alignment tape [MHP-L] and adjust the tracking control from maximum to minimum the FM waveform,confirm that FM waveform variation is always flat.
- (9) Record the signal and play it back in both of the SP and EP mode,confirm that the FM waveform is flat in both mode.
- (10) After adjustments,tighten the set screw of the guide rollers.
- (11) Confirm that the tape wrinkling does not occur at the roller upper or lower limits as indicated in Fig.2-7-4.

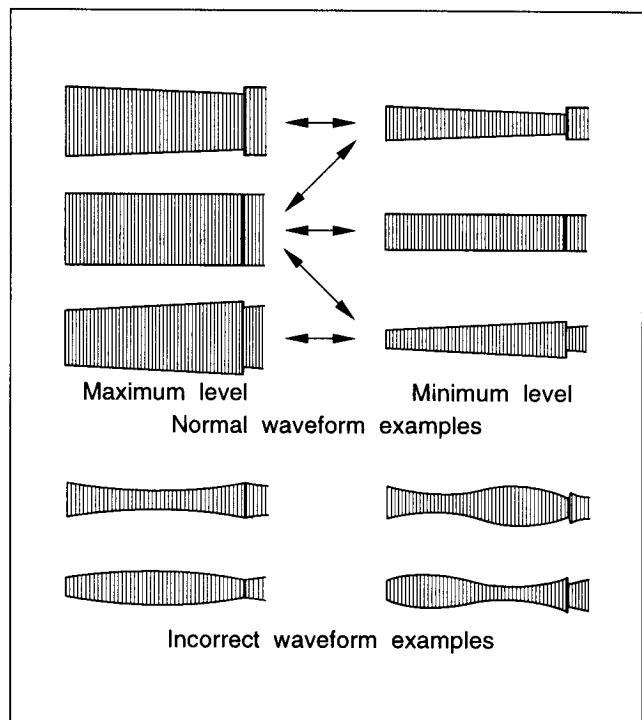


Fig. 2-7-1

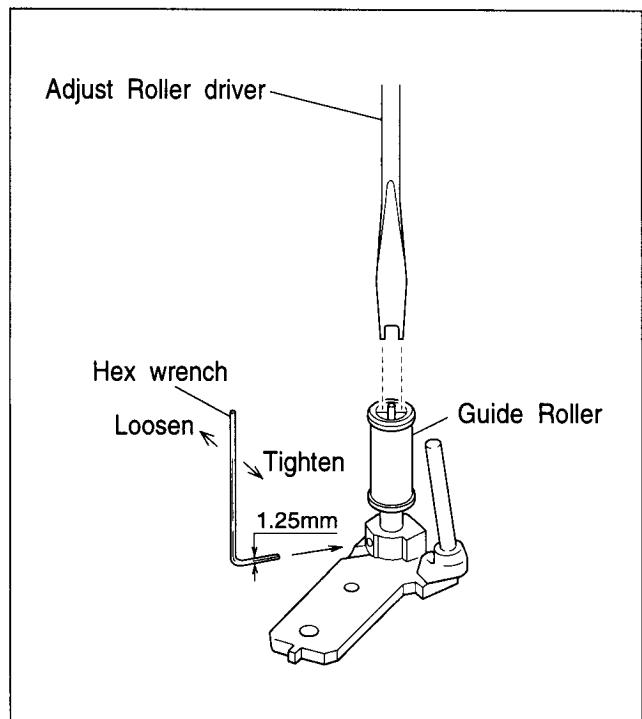


Fig. 2-7-2

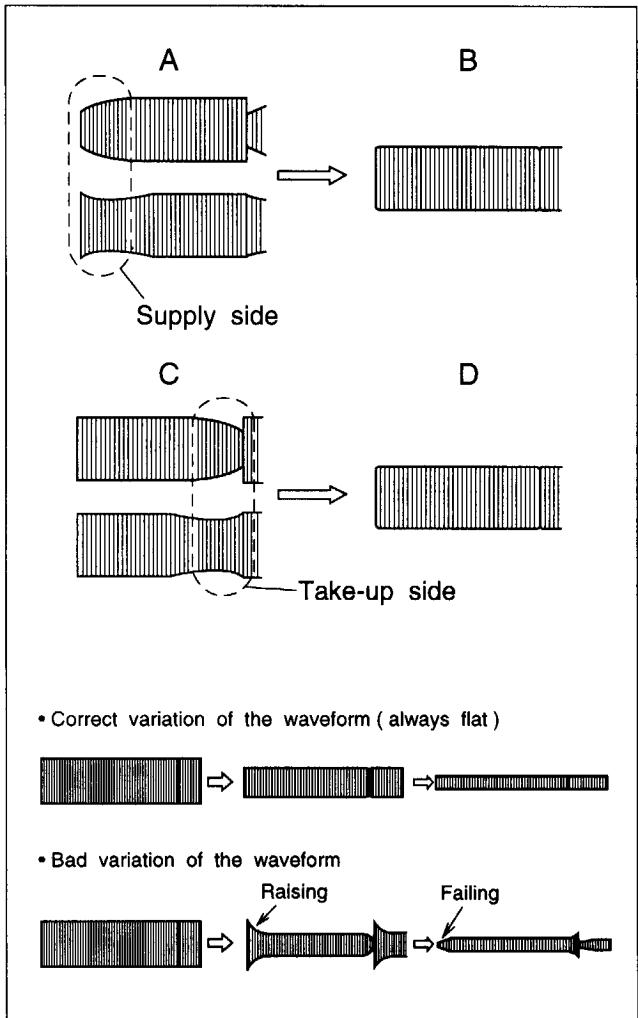


Fig. 2-7-3

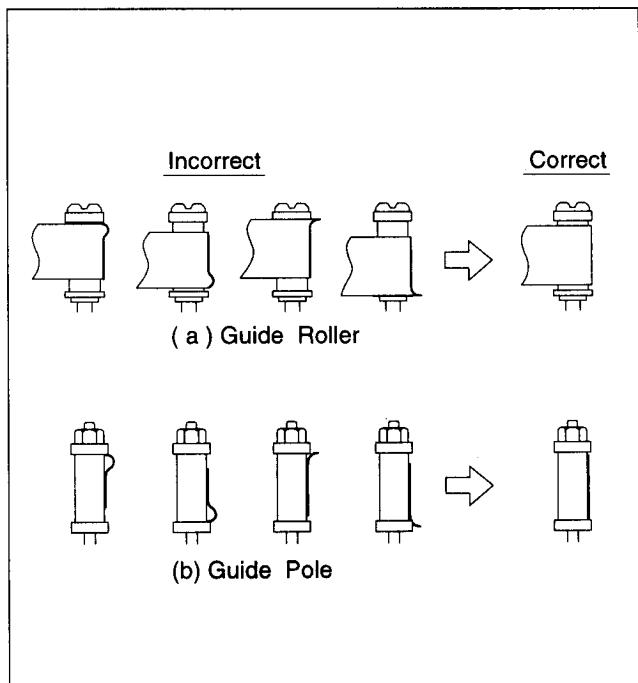


Fig. 2-7-4

2.7.2 A/C head height & azimuth

NOTE :

- Temporarily set A/C head height as indicated in Fig. 2-5-4.
- Use spare tape to check the transport and confirm the tape is not scratched or damaged.

1. Tilt

- (1) Use spare tape and set for playback.
- (2) Turn screw (3) clockwise to where the tape curls just slightly at the TU guide pole bottom flange as shown in Fig. 2-7-5.
- (3) Then slowly turn screw (3) counterclockwise to where the curling ceases.

2. Height

- (1) Connect CH-1 of a dual trace oscilloscope to Audio Out.
- (2) Connect CH-2 to TP401(CTL PULSE) of the Main board assembly and use the ALT mode.
- (3) Playback the SP stairstep portion of the alignment tape [MHP].
- (4) Adjust screws (1),(2) and (3) for maximum audio output and control pulse level.

3. Azimuth

- (1) Connect the oscilloscope to Audio Out.
- (2) Playback the SP stairstep portion of the alignment tape [MHP].
- (3) Adjust screw (2) so that the audio output is both maximum and with minimum fluctuation.

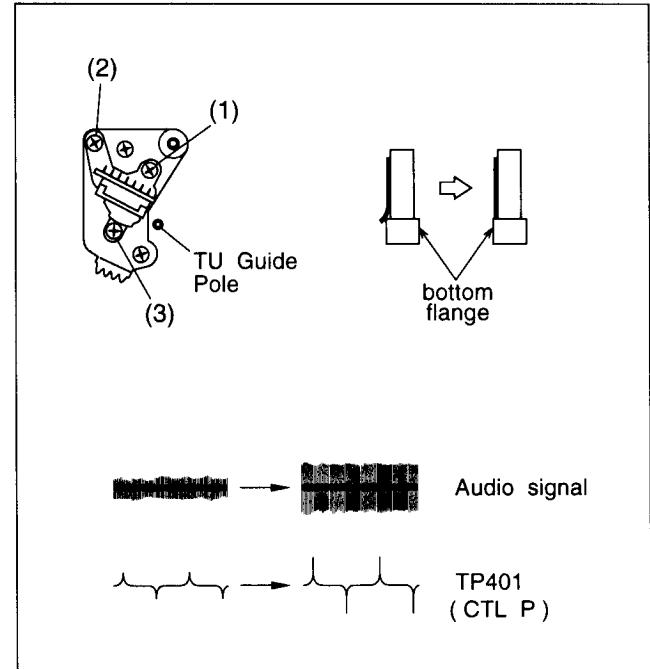


Fig. 2-7-5

2.7.3 A/C head phase(X-value)

- (1) Connect the oscilloscope to TP6(PB FM) on the PRE/REC board. Use TP11(D.FF) on the PRE/REC board as a trigger.
- (2) Playback the SP stairstep portion of the alignment tape [MHP].
- (3) Set the neutral manual tracking position by simultaneously pressing the “-” and “+” tracking buttons.
- (4) If adjustment is required, slightly loosen screws (4) and (5). Set A/C head positioning tool on the A/C head adjusting boss as indicated in Fig.2-7-6.
- (5) Turn the tool first to position the A/C head fully toward the capstan. Then gradually return it toward the drum and stop at the position of maximum FM waveform output level as shown in Fig.2-7-7.
- (6) Tighten screw (5). Remove the tool and tighten screw (4).
- (7) Eject the SP alignment tape [MHP] and then re-insert the EP alignment tape [MHP-L].
- (8) Playback the EP stairstep portion of the alignment tape [MHP-L].
- (9) Set the neutral manual tracking position by simultaneously pressing the “-” and “+” tracking buttons.
- (10) Confirm maximum playback FM waveform output level as shown in Fig.2-7-7.
- (11) If not maximum, slightly loosen the screws (4) and (5). Use the tool and adjust the head position for the nearest maximum point. Then tighten screws (4) and (5).

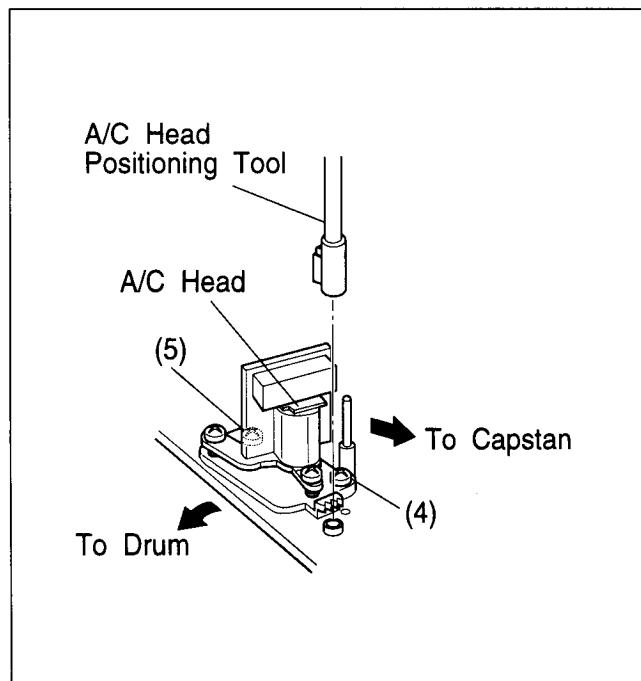


Fig. 2-7-6

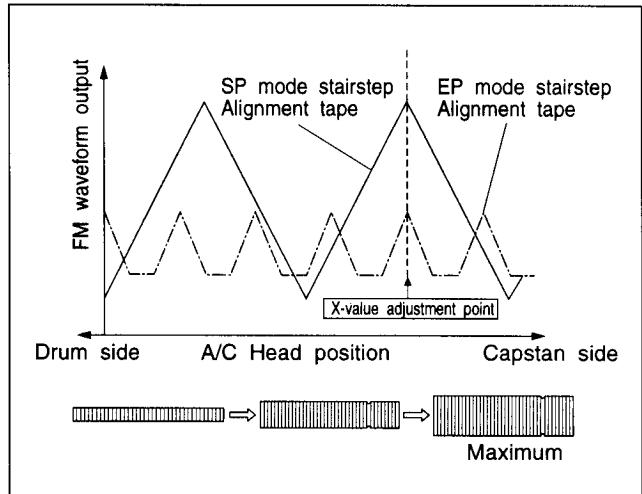


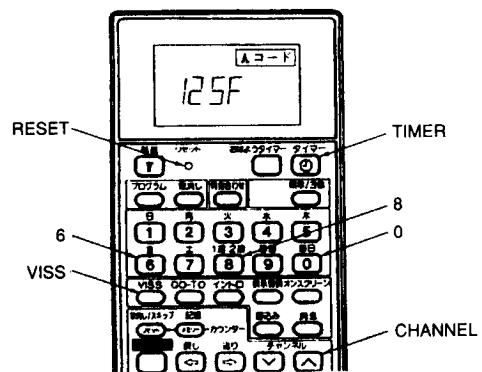
Fig. 2-7-7

2.7.4 EP mode auto tracking

- (1) Playback the EP stairstep portion of the alignment tape [MHP-L].
- (2) Confirm that the automatic tracking indication [AT] stops flashing and remains on.
- (3) Press the “チャンネル△” button on the presetting unit [PGJ05050] to turn off the automatic tracking indication [AT].
- (4) Press the “チャンネル△” button again to change the mode to the EP interchangeability adjustment mode and confirm that automatic tracking indication [AT] stops flashing and goes off.
- (5) If the alignment tape ejects automatically, repeat the A/C head phase adjustment (X-value).

● Instructions for using the presetting unit

- (1) Set the presetting unit to the adjustment mode. Press and hold down the [TIMER], [6] and [8] buttons. At the same time, press the [RESET] button with a pointed object. Check that you have successfully changed the remote control operating mode to adjustment mode by reading the “Aコード” and “125F” in the LCD.



Presetting unit

2.7.5 Tension pole position

- (1) Set for playback mode using MECHANISM SERVICE MODE(See SECTION 1.4).
- (2) Slightly loosen the screw (A) .
- (3) Turn the adjust pin so that the tension arm assembly does not touch $\phi 2.5$ pole on the outside.
- (4) Tighten the screw (A).
- (5) After adjustment,use the cassette torque meter [PUJ42881] and set for the playback mode.
- (6) Confirm reading of 29 to 46 g-cm as supply torque.

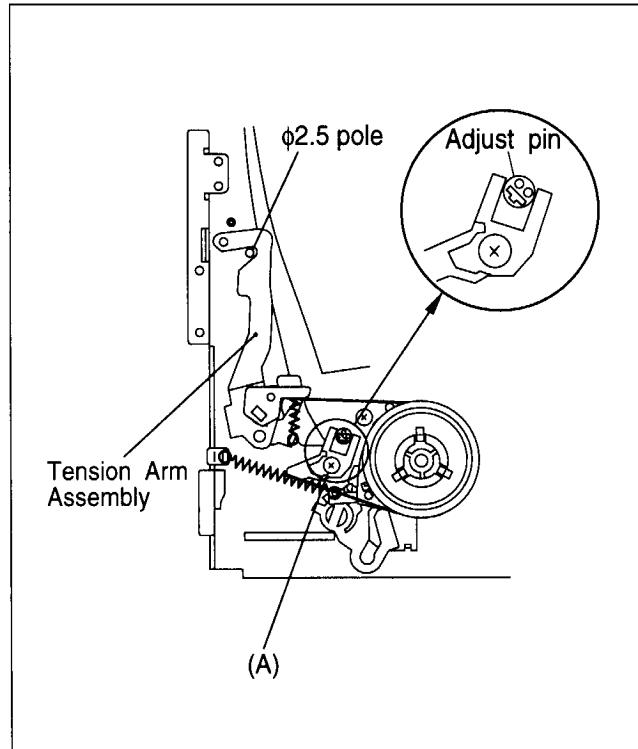


Fig. 2-7-8

2.7.6 Take-up torque

- (1) Use the cassette torque meter [PUJ42881] and set for the playback mode.
- (2) Confirm reading of 50 to 100 g-cm as take-up torque.

SECTION 3

ELECTRICAL ADJUSTMENT

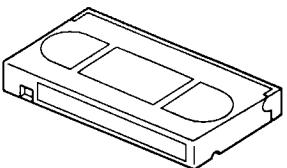
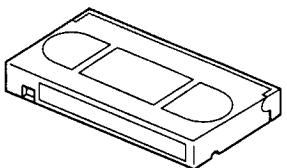
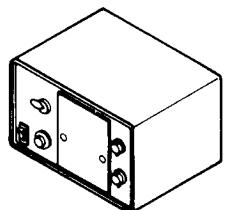
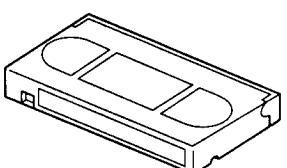
3.1 PRECAUTION

Electrical adjustment are required after replacing circuit components and certain mechanical parts. It is important to perform these adjustments only after all repairs and replacements have been completed. Also do not attempt these adjustments unless the proper equipments is available.

3.1.1 Required test equipment

- ① Color television or monitor
- ② Oscilloscope: wide-band,dual-trace,triggered delayed sweep
- ③ Frequency counter
- ④ Digital voltmeter
- ⑤ Signal generator: RF/IF sweep/maker
- ⑥ Signal generator: NTSC color bars
- ⑦ Recording tape

3.1.2 Required adjustment tools

Alignment tape (SP stairstep) MHP	Alignment tape (SP color bar) MHV-2
	
Carrier checker PGJ05008	Alignment tape (S-VHS SP/EP color bar) MH-1H
	

3.1.3 About board address

Consisting of numeral and alphabet following the symbol of a measurement point and a adjustment part indicates a section of the specified board where theirs are located.

3.1.4 Signals required for video system adjustment

- Color bars signal (composite and Y/C)
(color level; 75%, set up 7.5%)

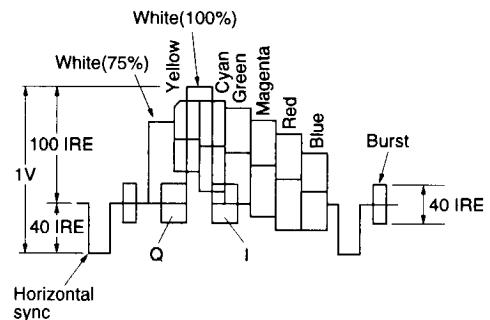


Fig.3-1-1 Color bars signal waveform

- Color bars pattern

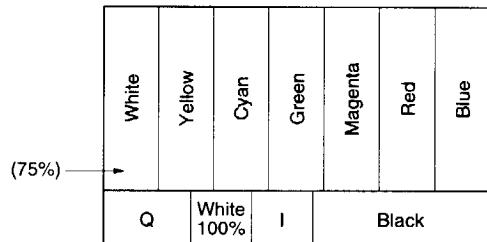
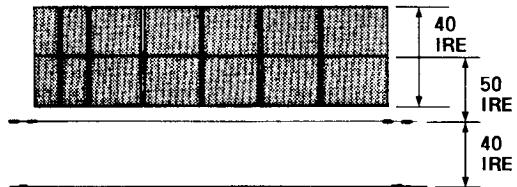
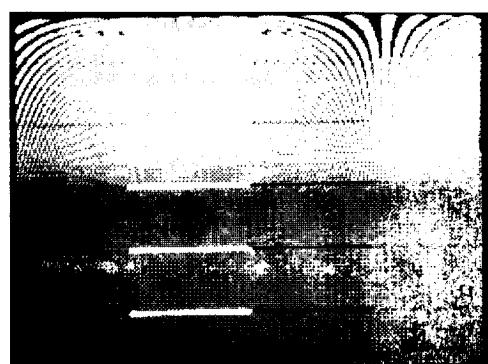


Fig.3-1-2 Color bars pattern

- Video sweep signal (100k - 5MHz)



To be used for frequency response adjustment (VIDEO EQ). To supply this signal through the LINE IN terminal, make sure to use a sweep signal having a good characteristic in the H correlation in order to avoid erroneous operation of comb filters. For a reference, a signal having a good H correlation shows such a clear pattern as neighboring black and white lines are the same in the width and the interval on the monitor as shown in the figure below.



3.2 SWITCHING REGULATOR CIRCUIT

Note: • Unless otherwise specified, all measurement points and adjustment parts are located on the MAIN BOARD.

3.2.1 5V DC output voltage

Signal	• Color bar
Mode	• REC : SP
Equipment	• Digital voltmeter
Measurement point	• TP801 (SWD 5V) : 4C
Adjustment part	• VR801 (R885) (SWD 5V) : 2C
Specification	• $5.22 \pm 0.10\text{V DC}$

- (1) Connect a digital voltmeter to TP801 and GND.
- (2) Adjust VR801 (R885) for $5.22 \pm 0.10\text{V DC}$.

3.3 SERVO CIRCUIT

Notes: • Unless otherwise specified, all measurement point and adjustment parts are located on the MAIN BOARD.
• This adjustment use the service mode. Refer to "1.5 Service mode" about detail of the service mode.

3.3.1 PB switching point

Signal	• Alignment tape [MHP], Stairstep
Mode	• PB, Automatic tracking OFF
Equipment	• Oscilloscope
Measurement point	• VIDEO OUT TERMINAL
Trigger slope (-)	• TP11(DRUM FF), [PRE/REC BOARD] : 5D
Specification	• $6.5 \pm 0.5\text{H}$

- (1) Set to service mode by pressing the **STOP**, the **PAUSE** and the **MENU** buttons simultaneously.
- (2) Select the "ADJUST MODE" with pressing the **SELECT** button and press the **SET** button. "ADJUSTMENT MODE SELECT" menu comes up.
- (3) Select the "SERVO MODE" with pressing the **SELECT** button and press the **SET** button.
- (4) Play back the alignment tape MHP, then "→" appears left of the item "6.5H ADJUST" and enter the auto adjustment mode.
- (5) Press the tracking "+" and "-" buttons simultaneously, then starts the adjustment mode automatically and stop the VTR automatically then adjustment is finished.

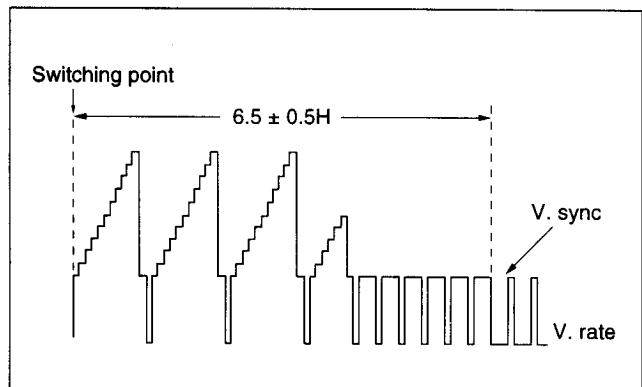


Fig.3-3-1 PB switching point

3.3.2 Slow tracking preset

Signal	• Color bar
Mode	• SP/EP, REC → PB(SLOW) Automatic tracking OFF
Equipment	• TV-Monitor
Specification	• Minimum noise

- (1) Set to service mode by pressing the **STOP**, the **PAUSE** and the **MENU** buttons simultaneously.
- (2) Select the "ADJUST MODE" with pressing the **SELECT** button and press the **SET** button. "ADJUST MODE SELECT" menu comes up.
- (3) Select the "SERVO MODE" with pressing the **SELECT** button and press the **SET** button.
- (4) Record a color bar signal in the SP mode.
- (5) Playback recorded signal on the FWD slow mode (press the **PAUSE** button more than 2 seconds).
- (6) "→" appears left of the item "SP FWD SLOW" and enter the adjustment mode.
- (7) Observe the display on the TV monitor and adjust for optimum noise condition (best tracking) by depressing "+" or "-" tracking buttons.
- (8) Depress the **STOP** button.
- (9) Confirm that the bar noise is not visible on the TV monitor in the slow mode.
- (10) Repeat steps (5) to (9) in REV slow mode.
- (11) Repeat steps (4) to (10) in EP mode.

3.4 VIDEO CIRCUIT

- Notes:**
- Unless otherwise specified, all measurement point and adjustment parts are located on the **MAIN BOARD**.
 - **VIDEO circuit adjustments are performed by the EVR system by use of the service mode.**
 - **S-INPUT means Y/C separated video signal in the chart.**
 - Set the **EDIT SELECT** to **OFF** position.
 - To select either **S-VHS** or **VHS** mode automatically, set the menu switch No. 100 **S-VHS SELECT** to **AUTO** (1) and insert a cassette tape.

• How to setting the EVR adjustment

- (1) Set to service mode by pressing the **STOP**, the **PAUSE** and the **MENU** buttons simultaneously.
- (2) Select the "ADJUST MODE SELECT" menu comes up.
- (3) Select the "EVR MODE" with pressing the **SELECT** button and press the **SET** button more than 2 seconds.
- (4) Set the "EVR No." with pressing the **C.RESET** button.

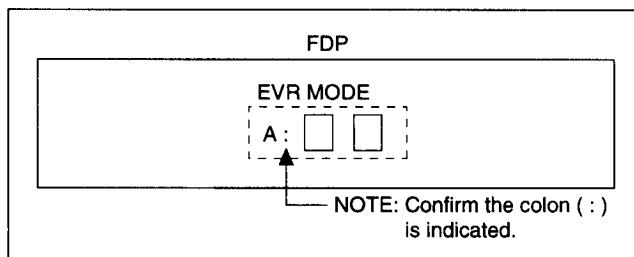


Fig.3-4-1 EVR mode

3.4.1 AGC Y level

Signal	• Color bar
Mode	• EE • S-VHS
Equipment	• Oscilloscope
Measurement point	• VIDEO OUT TERMINAL
EVR mode	• A : 11
Specification	• $1.00 \pm 0.03\text{Vp-p}$ (terminated)

- (1) Connect an oscilloscope to VIDEO OUT TERMINAL.
- (2) Adjust **SET** or **SELECT** button for $1.00 \pm 0.03\text{Vp-p}$.
- (3) Set normal VCR mode by pressing **MENU** button so adjustment data is memorized in video unit IC6.

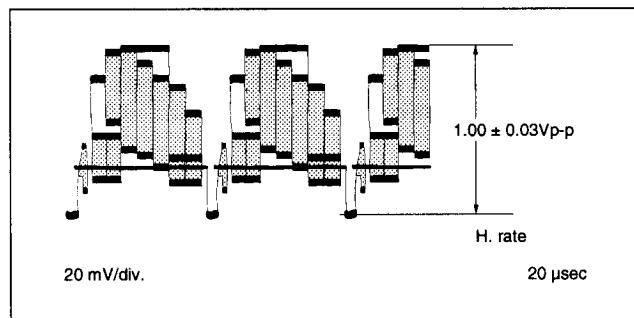


Fig. 3-4-2 AGC Y level

3.4.2 White/dark clip (S-VHS/VHS)

Signal	• Color bar
Mode	• EE • S-VHS/VHS
Equipment	• Oscilloscope
Measurement point	• TP201 (W/D CLIP) : 22D
EVR mode	• A : 14
Specification	• WHITE CLIP : $110\% \pm 4\%$ (S-VHS) $90\% \pm 4\%$ (VHS) DARK CLIP : $70\% \pm 8\%$ (S-VHS) $45\% \pm 8\%$ (VHS)

- (1) Connect an oscilloscope to TP201.
- (2) Adjust **SET** or **SELECT** button for $110 \pm 4\%$ (S-VHS), $90 \pm 4\%$ (VHS) white clip and $70 \pm 8\%$ (S-VHS), $45 \pm 8\%$ (VHS) dark clip as shown in Fig.3-4-3.
- (3) Set normal VCR mode by pressing **MENU** button so adjustment data is memorized.

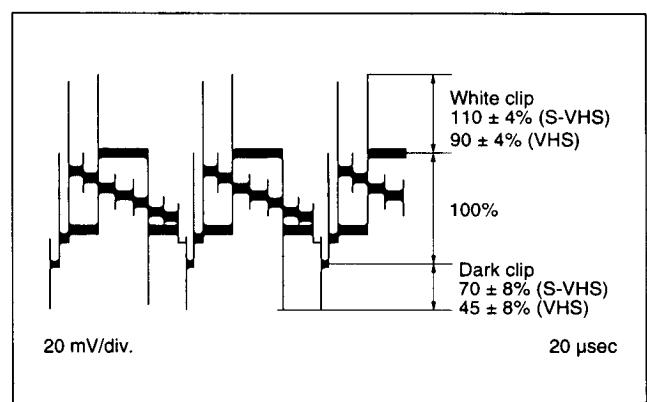


Fig.3-4-3 White/dark clip

3.4.3 Sub emphasis input level

Signal	• Color bar
Mode	• EE • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP202 (SUB EMPHASIS) : 21B
EVR mode	• A : 15
Specification	• $400 \pm 20 \text{ mVp-p}$

- (1) Connect an oscilloscope to TP202.
- (2) Adjust **SET** or **SELECT** button of the remote controller for $400 \pm 20 \text{ mVp-p}$.
- (3) Set normal VCR mode by pressing **MENU** button so adjustment data is memorized.

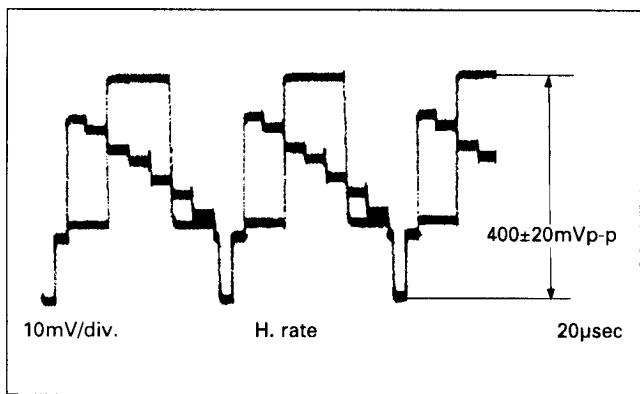


Fig. 3-4-4 Sub emphasis input level

3.4.4 Carrier/deviation (S-VHS/VHS)

Signal	• Color bar • S-VHS/VHS
Mode	• EE
Equipment	• Oscilloscope
Measurement point	• CN202 pin 3 : 21E
Adjustment tool	• Carrier checker
EVR mode	• A : 13 (deviation) • A : 12 (carrier)
Specification	• Carrier : $5.4\text{MHz} \pm 30\text{kHz}$ (S-VHS) : $3.45\text{MHz} \pm 30\text{kHz}$ (VHS) • Deviation : $1.6\text{MHz} \pm 30\text{kHz}$ (S-VHS) : $1.0\text{MHz} \pm 30\text{kHz}$ (VHS)

- (1) Connect the carrier checker to CN202 pin 3 and its output to the oscilloscope.
- (2) In the S-VHS mode, adjust **SET** or **SELECT** button to accord the sync tip with the "LOWER" marker and to accord the 100% white with the "UPPER" marker.

- (3) In the VHS mode, adjust the gain control of the oscilloscope to set between the "LOWER" marker and the "UPPER" marker for 4.0 scale divisions. Adjust **SET** or **SELECT** button to be difference 0.2 scale between the sync tip and the "LOWER" marker and to be difference 0.2 scale between the 100% white and the "UPPER" marker.
- (4) Set normal VCR mode by pressing **MENU** button so adjustment data is memorized.

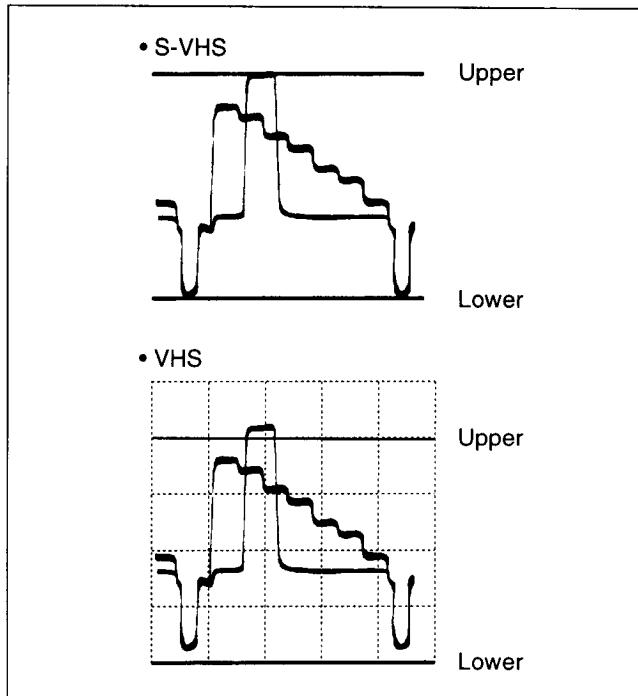


Fig. 3-4-5 Carrier/Deviation

3.4.5 PB Y level (S-VHS/VHS)

Signal	• Color bar • S INPUT
Mode	• REC → PB : SP • S-VHS / VHS
Equipment	• Oscilloscope
Measurement point	• VIDEO OUT TERMINAL
EVR mode	• A : 11
Specification	• $1.00 \pm 0.03\text{Vp-p}$ (terminated)

- (1) Connect an oscilloscope to VIDEO OUT TERMINAL.
- (2) Record a color bar signal in S-VHS(VHS) mode.
- (3) Adjust **SET** or **SELECT** button for $1.00 \pm 0.03\text{Vp-p}$ as shown in Fig.3-4-6.
- (4) Set normal VCR mode by pressing **MENU** button so adjustment data is memorized.

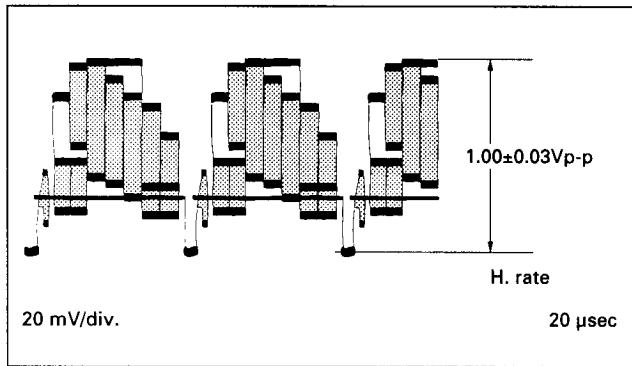


Fig.3-4-6 PB Y level

3.4.6 SP/EP REC color level

Signal	• Alignment tape [MH-1H]Color bar
Mode	• PB (SP/EP) • REC → PB : SP/EP • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP203 (PB color out) : 22I
Trigger slope (-)	• TP11 (DRUM FF) [PRE/REC board] : 5D
EVR mode	• A : 2
Specification	• "A" x 130% ± 5% : SP • "B" x 100% ± 5% : EP

- (1) Playback the SP (EP) color bar signal of MH-1H alignment tape.
- (2) Make a note of the higher color level "A(B)".
- (3) Press the **STOP** button and eject the MH-1H alignment tape.
- (4) Set EVR mode A:2.
- (5) Record a color bar signal in SP (EP) mode, and playback recorded color bar signal.
- (6) Before recording, adjust **SET** or **SELECT** button so that the higher level channel becomes 130 ± 5% : SP (100 ± 5% : EP) of the note "A(B)" level during playback as shown in Fig. 3-4-8.
- (7) Set normal VCR mode by pressing **MENU** button so adjustment data is memorized.

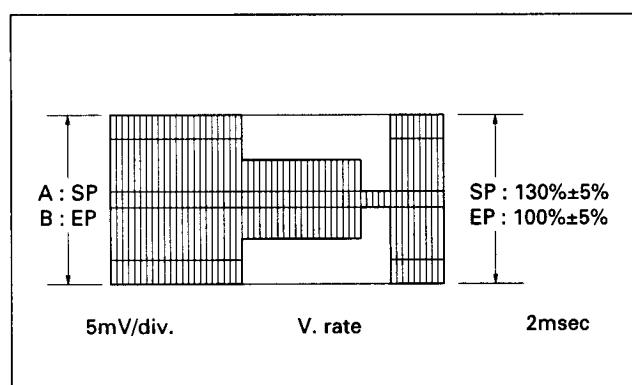


Fig. 3-4-7 REC color level

3.4.7 S-VHS VIDEO EQ

Signal	• S INPUT • Video sweep
Mode	• REC → PB : SP/EP • S-VHS • EDIT SELECT REC : OFF PB : DUB
Equipment	• Oscilloscope
Measurement point	• Y OUT TERMINAL
Adjustment part	• R113 (S-SP VIDEO EQ) : 2D [PRE/REC board] • R114 (S-EP VIDEO EQ) : 3D [PRE/REC board]
Specification	• 3.2 ± 0.2 scale R113 : SP • 2.8 ± 0.2 scale R114 : EP

- (1) Connect an oscilloscope to Y OUT TERMINAL.
- (2) Record a video sweep signal in S-VHS SP mode, then play it back.
- (3) If the sweeper's 100 kHz marker frequency is for 4 scale divisions on the oscilloscope screen, adjust R113 so that 3.58 MHz marker level becomes 3.2 ± 0.2 scale divisions.
- (4) Record a video sweep signal in S-VHS EP mode, then play it back.
- (5) If the sweeper's 100 kHz marker frequency is for 4 scale divisions on the oscilloscope screen, adjust R114 so that 3.58 MHz marker level becomes 2.8 ± 0.2 scale divisions.

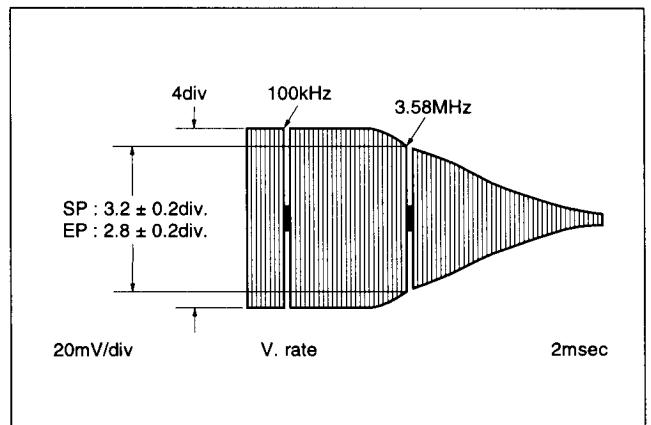


Fig. 3-4-8 S-VHS VIDEO EQ

Alternate method

- (1) Record a color bar signal in S-VHS SP mode,
- (2) Play it back to observe the picture and adjust R113 for best resolution, without losing S/N ratio.
- (3) So after adjustment, confirm black or white spot.
- (4) Record a color bar signal in S-VHS EP mode.
- (5) Play it back to observe the picture and adjust R114 for best resolution, without losing S/N ratio.
- (6) So after adjustment, confirm black or white spot.

3.4.7 AFC CLOCK

Note: For the following adjustments, use 1 : 1 probe with input capacitance less than 100 pF.

Signal	• No signal
Mode	• EE • AUX
Equipment	• Frequency counter
Measurement point	• TP301 : 16M
Adjustment part	• VR301(R309) (fH) : 17M
Specification	• 15.73 ± 0.10 kHz

- (1) Connect the frequency counter to TP301 and GND.
- (2) Adjust VR301(R309) for 15.73 ± 0.10 kHz.

3.5 PRE/REC CIRCUIT

3.5.1 REC FM level

Note: The R12, REC FM level is not necessary to be re-adjusted for any cases servicing.

If it is turned accidentally or IC1 need to be replaced for some reason, whole PRE/REC board have to be replaced.

3.6 AUDIO CIRCUIT

Note: Unless otherwise specified, all measurement point and adjustment parts are located on the PRE/REC BOARD.

3.6.1 REC FM level

Signal	• VIDEO : Color bar • Audio : No signal
Mode	• REC → PB : EP • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP53 (A. PB FM)
Trigger slope (-)	• TP11 (DRUM FF)
Adjustment part	• R216 (A. REC FM LEVEL)
Specification	• 90 ± 10 mVp-p

- (1) Connect an oscilloscope to TP53.
- (2) Record a color bar signal without an audio signal in S-VHS EP mode then playback.
- (3) Adjust R216 for 90 mVp-p playback level of higher channel level before recording.
- (4) Confirm that the lower channel level is more than 60 mVp-p.

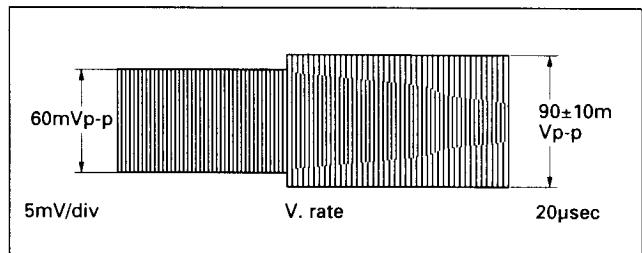


Fig. 3-6-1 Audio REC FM level

3.6.2 Audio EE level

Signal	• 1kHz, -8dBs
Mode	• EE • Audio out select : HiFi L+R
Equipment	—
Measurement point	• Sound level meter (Front panel)
Adjustment part	• VR1(R67)(A LEV ADJ (L)) [MAIN board] : 6M • VR2(R74)(A LEV ADJ (R)) [MAIN board] : 7M
Specification	• 0 dB

- (1) Set the HiFi REC level VR to center click position.
- (2) Adjust VR1(R67) and VR2(R74) so that the sound level meter shows 0dB.

3.7 Y/C SEP CIRCUIT

Note: Unless otherwise specified, all measurement point and adjustment parts are located on the Y/C SEP BOARD.

3.7.1 Digital I/O level

Signal	• Color bar
Mode	• EE • S-VHS
Equipment	• Oscilloscope
Measurement point	• CN206 - pin4 (Y/V To SEP) • CN206 - pin6 (SEPAD Y1) [MAIN board]
Adjustment part	• R68 (DIGITAL I/O LEVEL) : 5B
Specification	• Equal level

- (1) Remove the SEP/HP board from chassis and tip the Y/C SEP board together SEP/HP board.
- (2) Connect the channel (CH-1) of a dual trace oscilloscope to CN206 - pin4 and the other channel (CH-2) to CN206 - pin6 on the MAIN board.
- (3) Set the oscilloscope for DUAL mode, and overlap the waveform.
- (4) Adjust R68 for equal Y levels.

SECTION 4 CHARTS AND DIAGRAMS

4.1 NOTES OF SCHEMATIC DIAGRAM

Safety precautions

The Components identified by the symbol  are critical for safety. For continued safety, replace safety critical components only with manufactures recommended parts.

1. Units of components on the schematic diagram

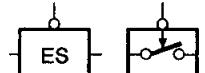
Unless otherwise specified.

- 1) All resistance values are in ohm. 1/6 W, 1/8 W (refer to parts list).
Chip resistors are 1/16 W.
k: kΩ (1000Ω), M: MΩ (1000kΩ)
- 2) All capacitance values are in μF, (P: PF).
- 3) All inductance values are in μH, (m: mH).
- 4) All diodes are 1SS133, MA165 or IN4148M (refer to parts list).

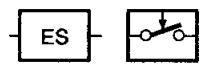
2. Indications of control voltage

AUX : Active at high.

AUX or AUX(L) : Active at low.



Active only at low for electronic switch.

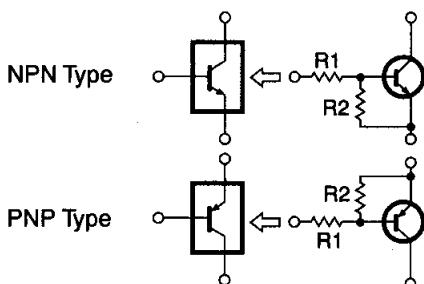


Active only at high for electronic switch.

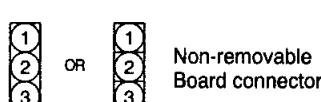
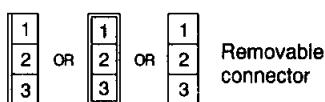
Digital transistor :

The digital transistor includes built in resistors.

It features small size and high reliability.



3. Interpreting Connector Indications



4. Voltage measurement

1) Video circuits

REC : Supplied color bar signal and measured in SP, S-VHS mode.

PB : Played back alignment tape of color bar and measured in SP, S-VHS mode.

— : Unmeasurable or unnecessary to measure.

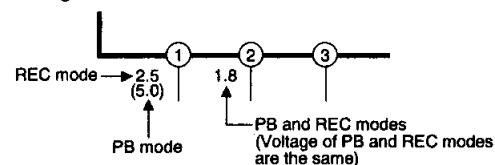
2) Audio circuits

REC : 1kHz, -8 dBs sine wave signal in SP mode, Normal VHS mode.

PB : REC then playback it.

4) Indication on schematic diagram

Voltage Indications for REC and PB mode on the schematic diagram are as shown below.



Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

5. Waveform measurement

1) Video circuits

REC : Supplied color bar signal and measured in SP, S-VHS mode.

PB : Played back alignment tape of color bar and measured in SP, S-VHS mode.

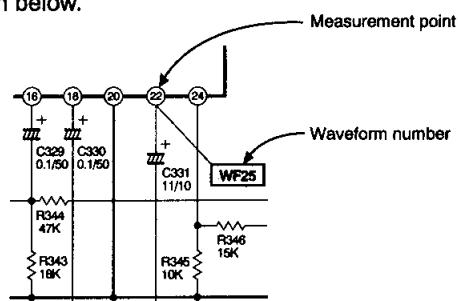
2) Audio circuits

REC : 1kHz, -8 dBs sine wave signal in SP mode, normal VHS mode.

PB : REC then playback it.

3) Indication on schematic diagram

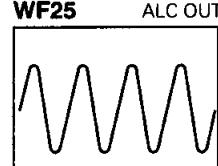
Waveform indications on the schematic diagram are as shown below.



4) Waveform indications

Waveform number → WF25 → Waveform name or measurement point

WF25 → ALC OUT



REC/PB 1.2 Vp-p ← Level : 1.2 Vp-p
50 mV/2 msec/DIV

Mode : REC or PB modes

6. Signal path Symbols

The arrows indicate the signal path as follows.

- Playback signal path
- Playback and recording signal path
- Recording signal path
(including E-E signal path)
- Y signal path
- Color (Chroma) signal path
- R or R-Y signal path
- B or B-Y signal path
- Capstan servo path
- Drum servo path
- Reel servo path

CIRCUIT BOARD NOTES

1. Foil and Component sides

- 1) Foil side (B side) :
Parts on the foil side view from foil face (pattern face) are indicated.
- 2) Component side (A side) :
Parts on the component side view from component face are (parts face) indicated.

2. Pattern color

- 1) Foil side (B side) :
Pattern of the foil side shows black.
- 2) Component side (A side) :
Pattern of the component side shows red.

3. Parts location guides

Parts location are indicated by guide scale on the circuit board.

1)

REF.NO.	LOCATION		
IC	←		
IC101	B	C	6A

B : Foil side
(A : Component side)
C : Chip component
(D : Discrete component)

Category: IC

Horizontal "A" zone

Vertical "6" zone

2)

REF NO.	LOCATION
IC	
IC101	B-11O

B : Foil side
(A : Component side)

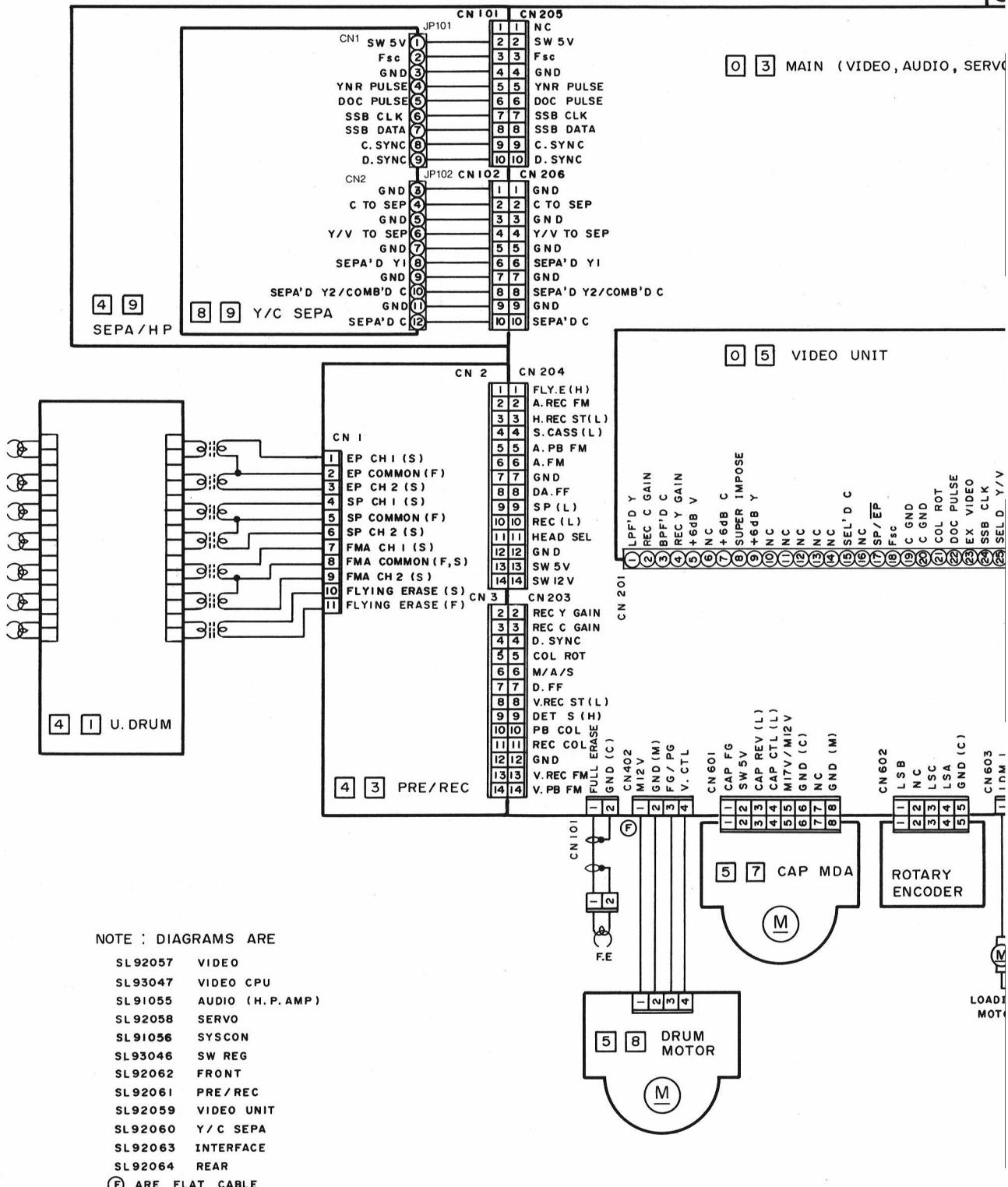
Horizontal "O" zone

Vertical "11" zone

Note:

- For repairing SMC (Surface Mounted Components), please refer to the VIDEO SERVICE GUIDE No. VTS81001 issued by consumer video division.

4.2 OVERALL WIRING DIAGRAM



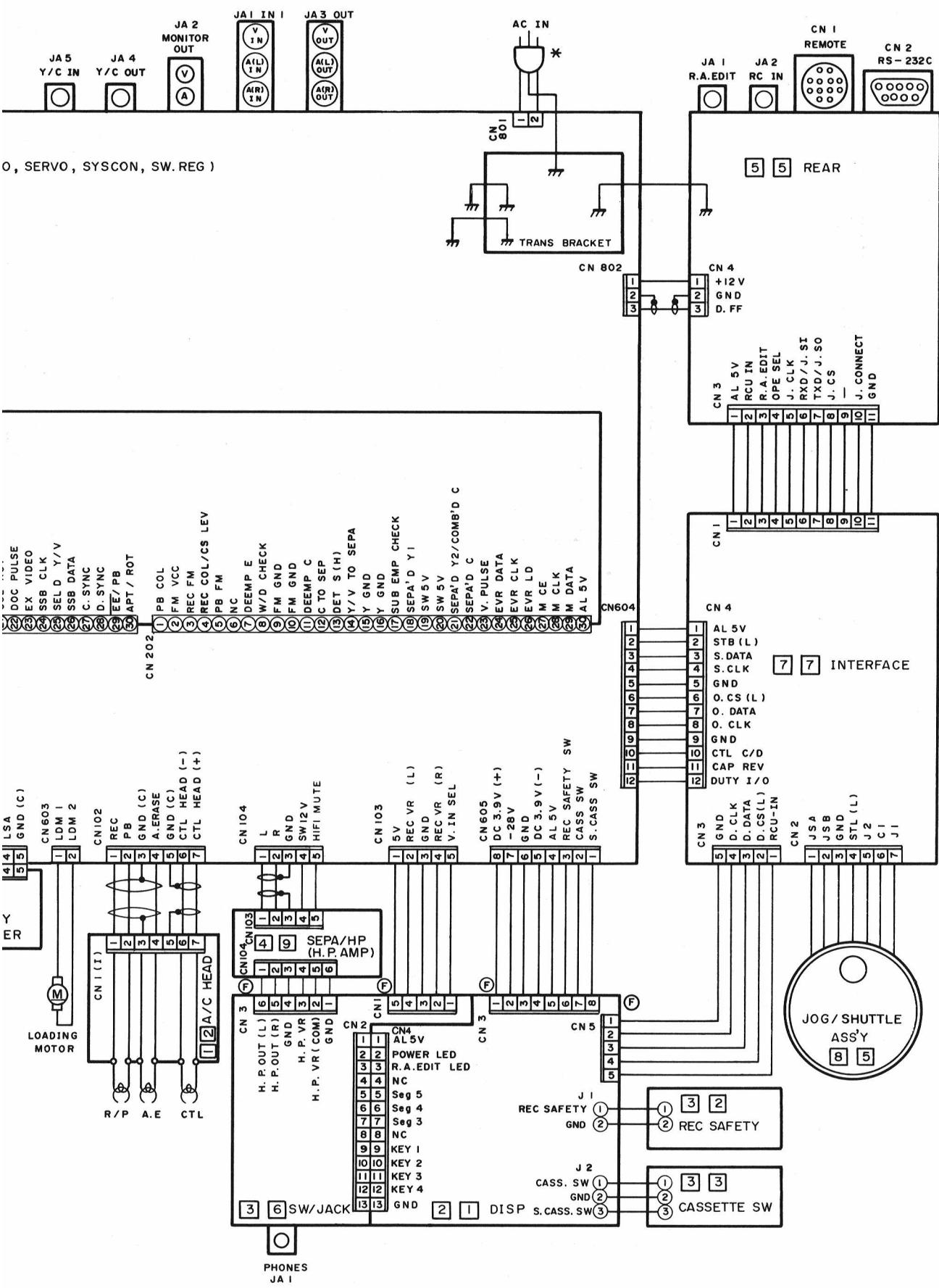
NOTE : DIAGRAMS ARE

SL92057	VIDEO
SL93047	VIDEO CPU
SL91055	AUDIO (H.P. AMP)
SL92058	SERVO
SL91056	SYS CON
SL93046	SW REG
SL92062	FRONT
SL92061	PRE/REC
SL92059	VIDEO UNIT
SL92060	Y/C SEPA
SL92063	INTERFACE
SL92064	REAR

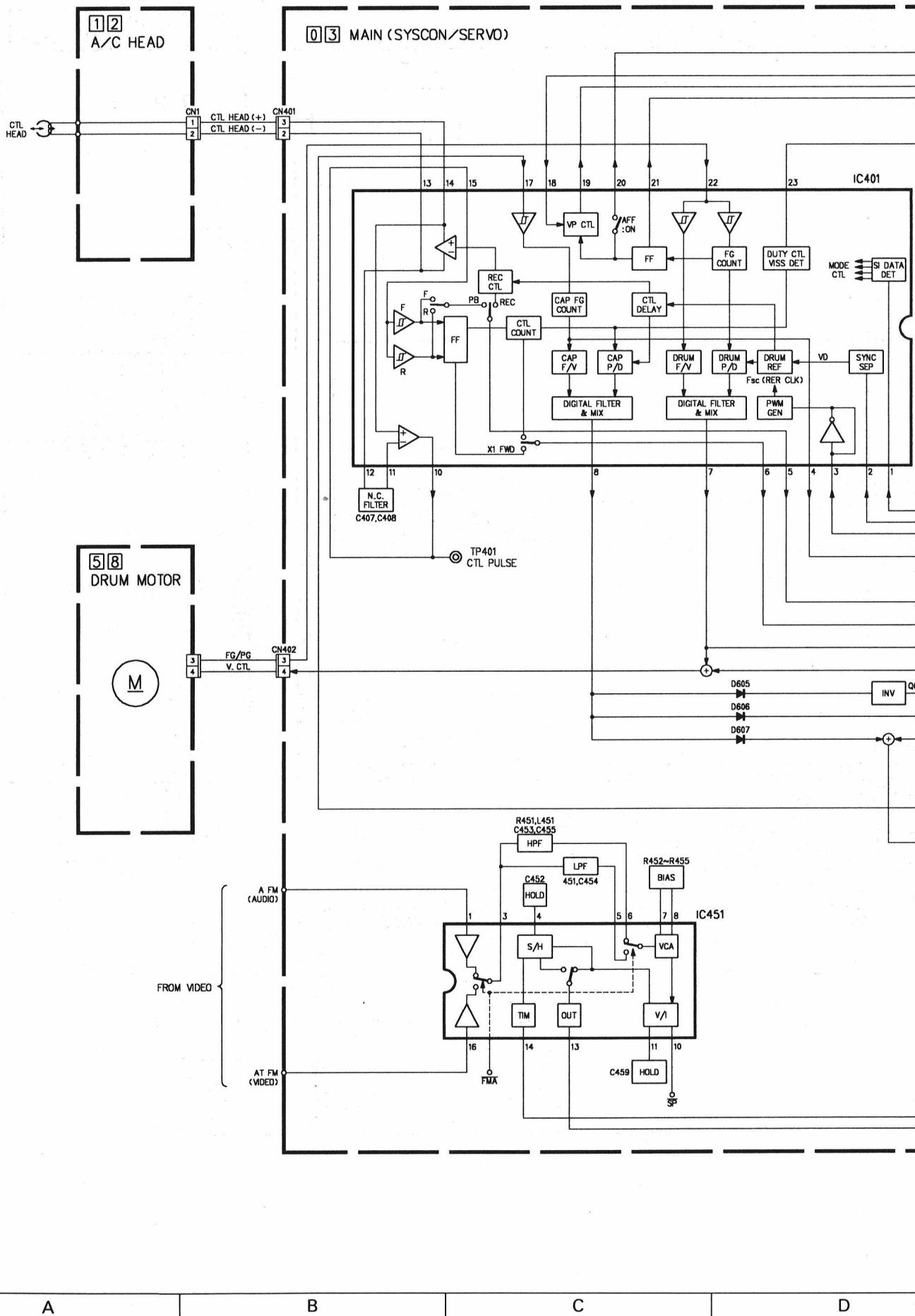
(E) ARE FLAT CABLE

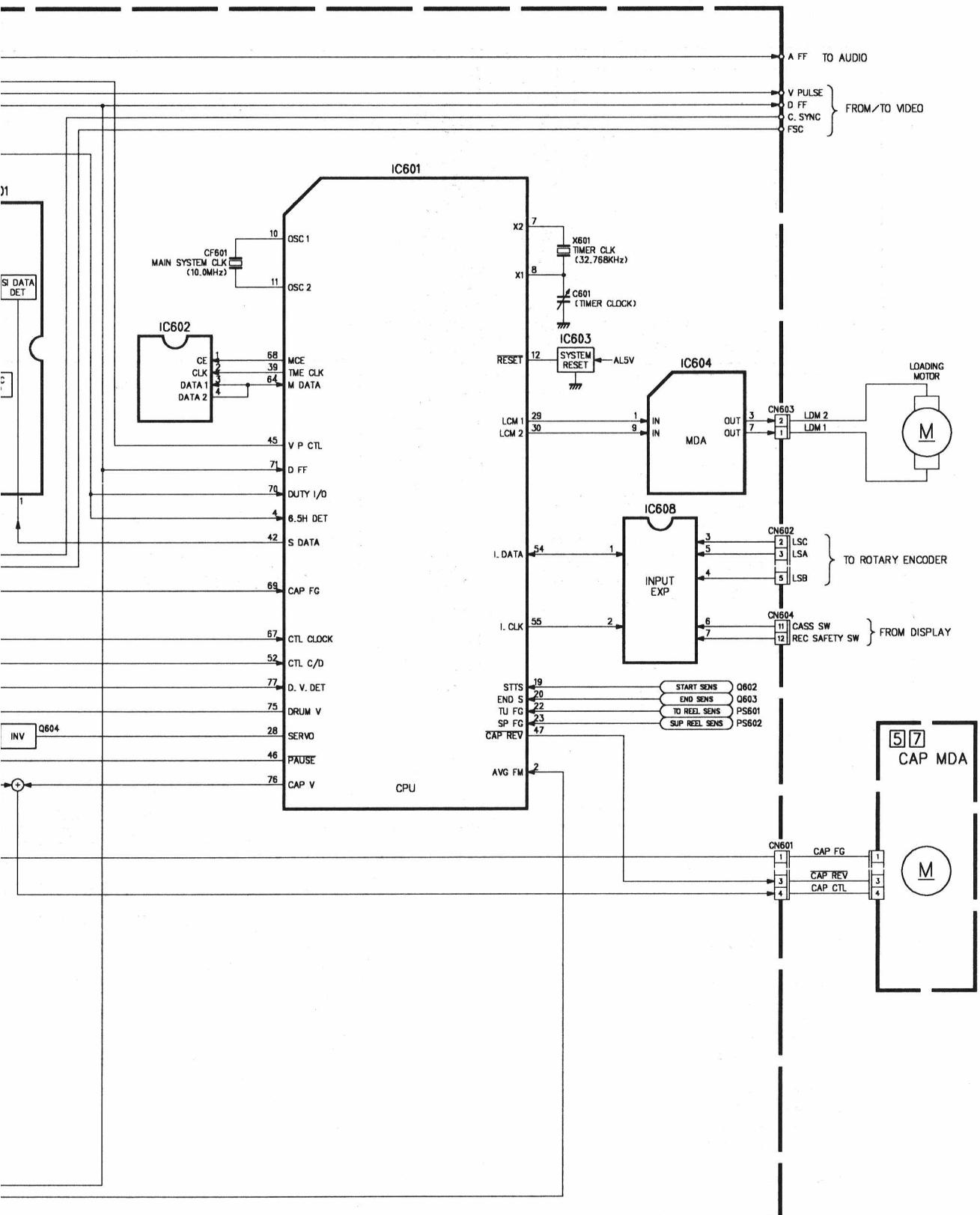
* DEFFERENCE TABLE

	AC IN
SR-S365	2 P
SR-S365II	3 P

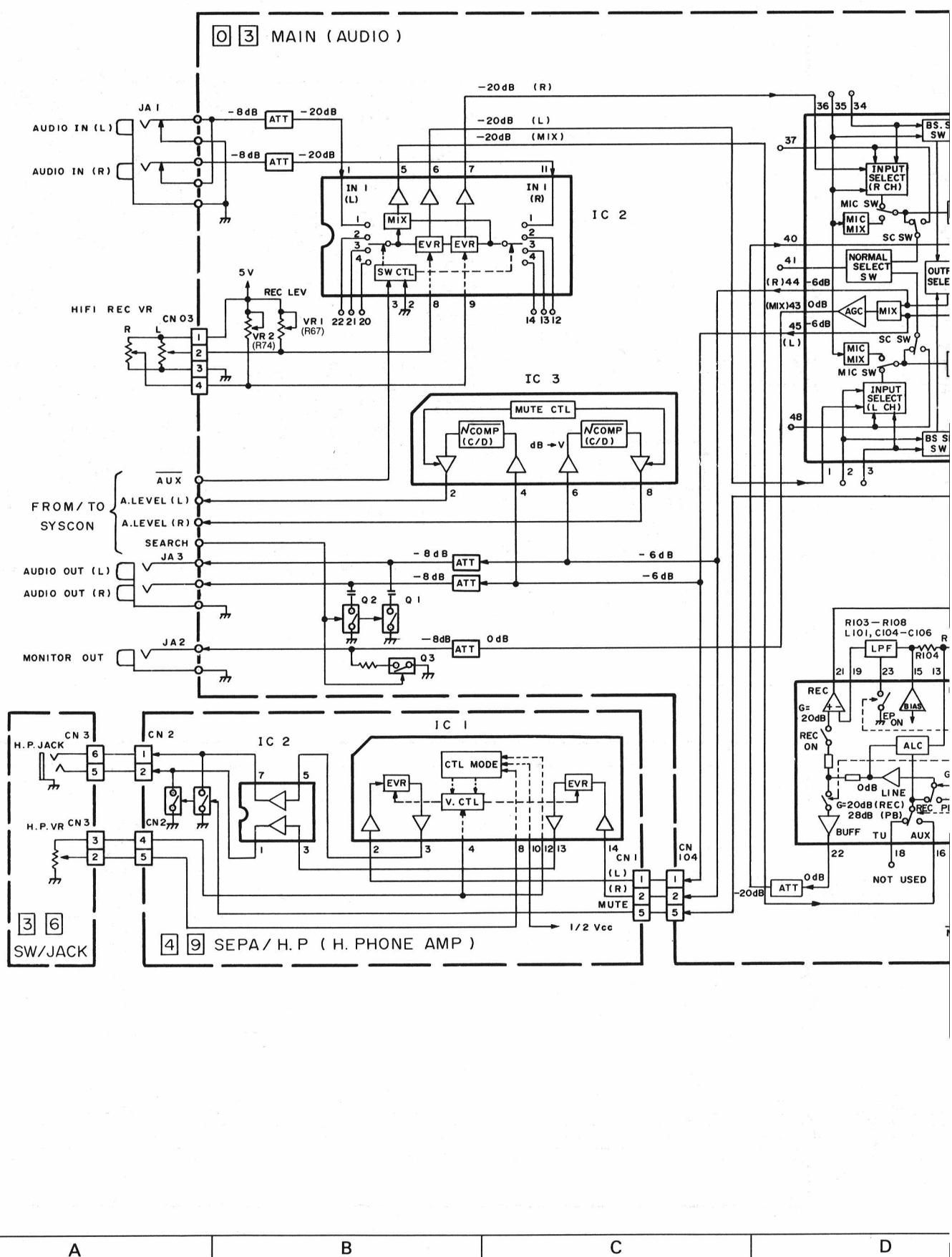


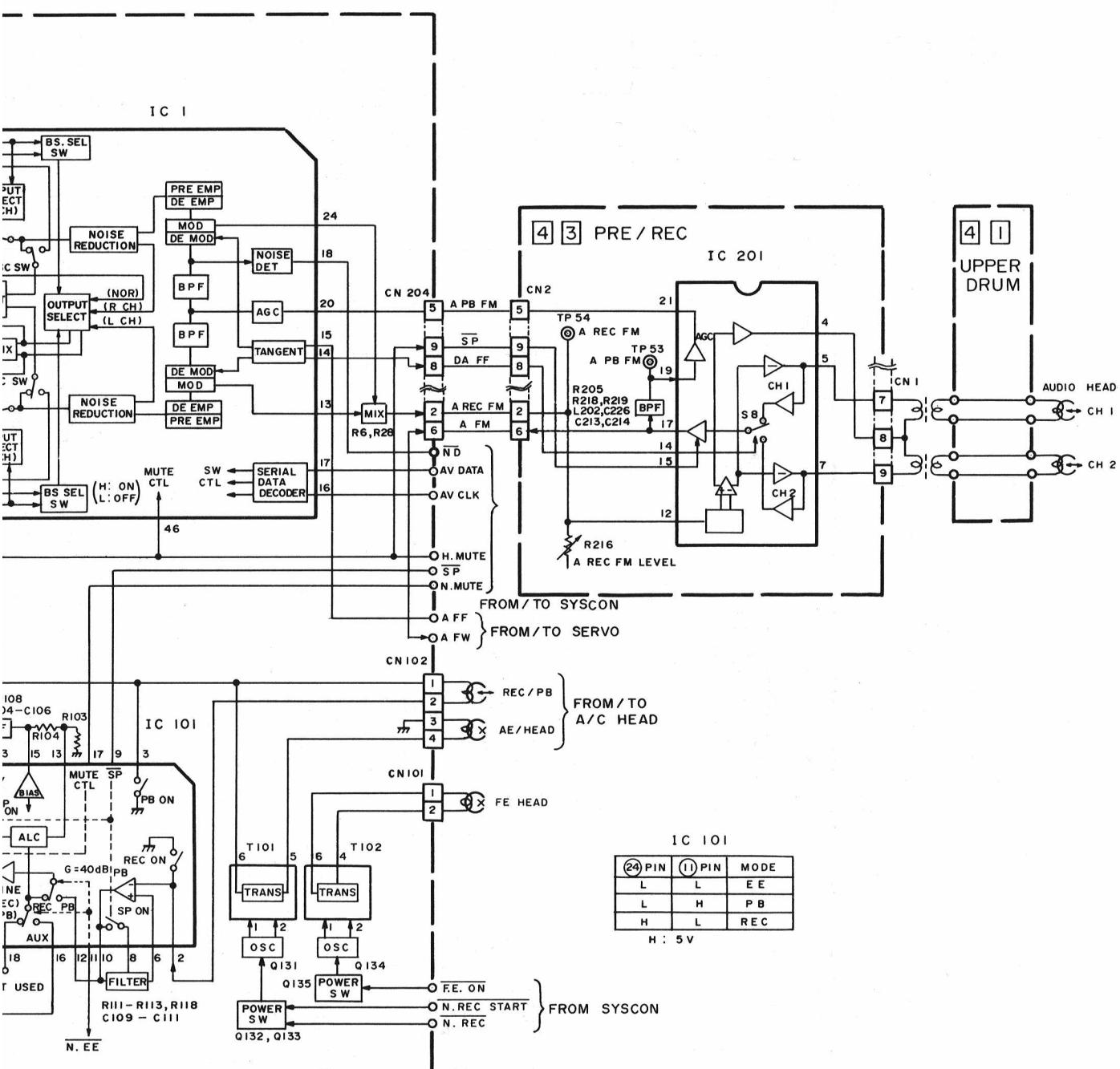
4.3 SYSCON/SERVO BLOCK DIAGRAM



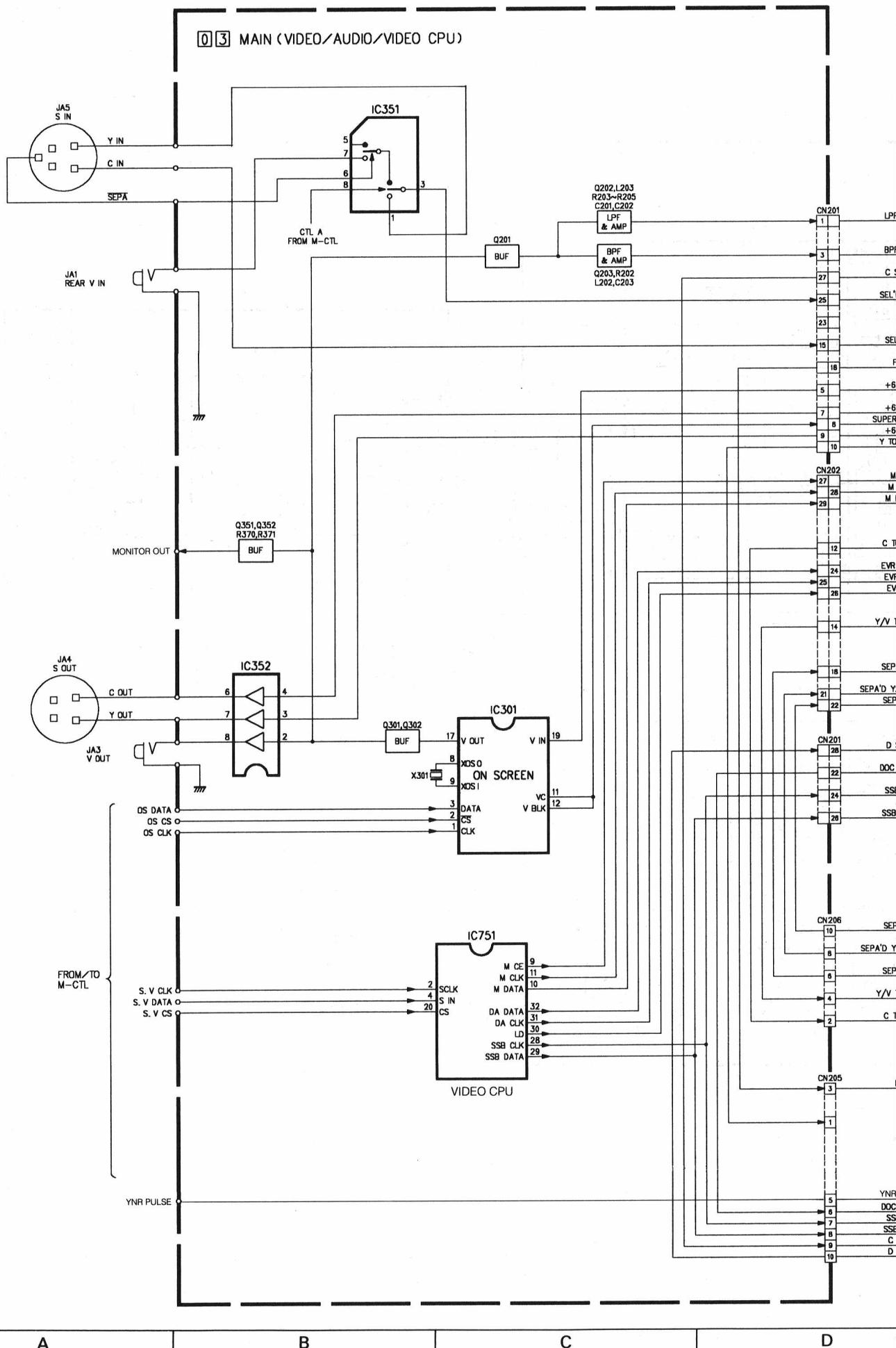


4.4 AUDIO BLOCK DIAGRAM

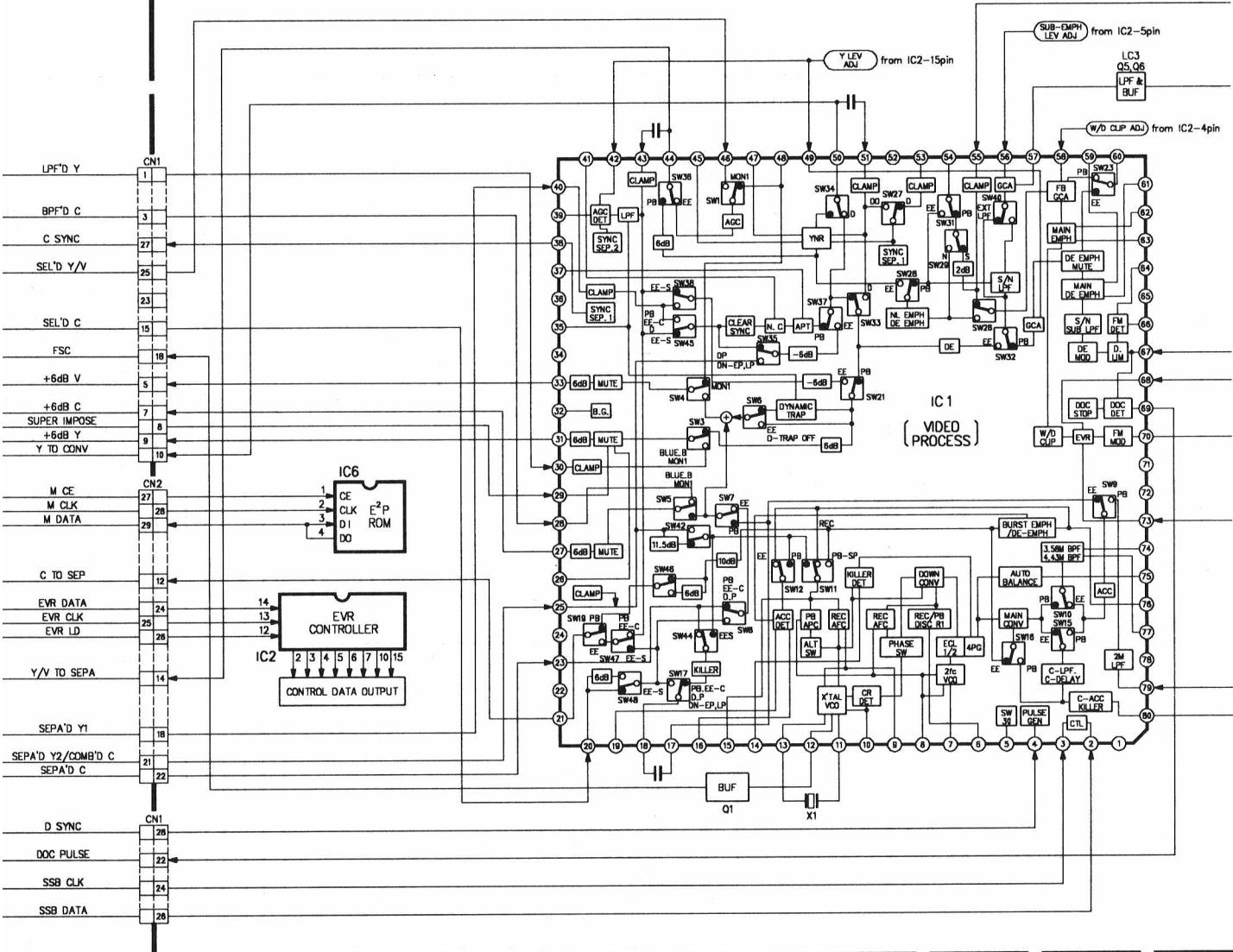




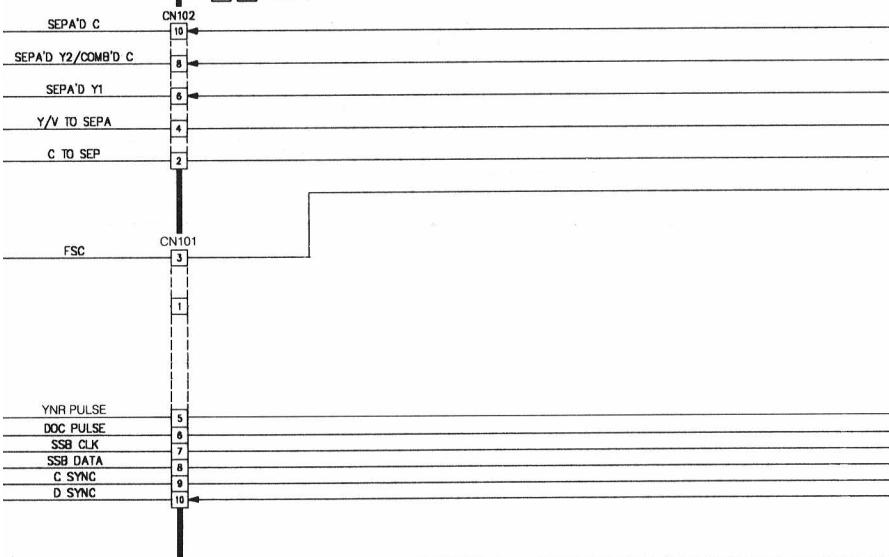
4.5 VIDEO BLOCK DIAGRAM



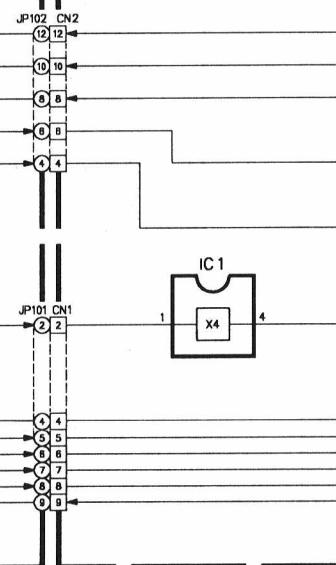
0 5 VIDEO UNIT

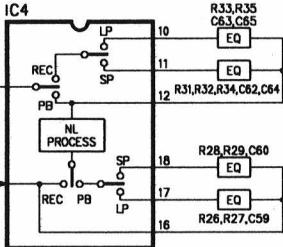


4 9 SEP/HP

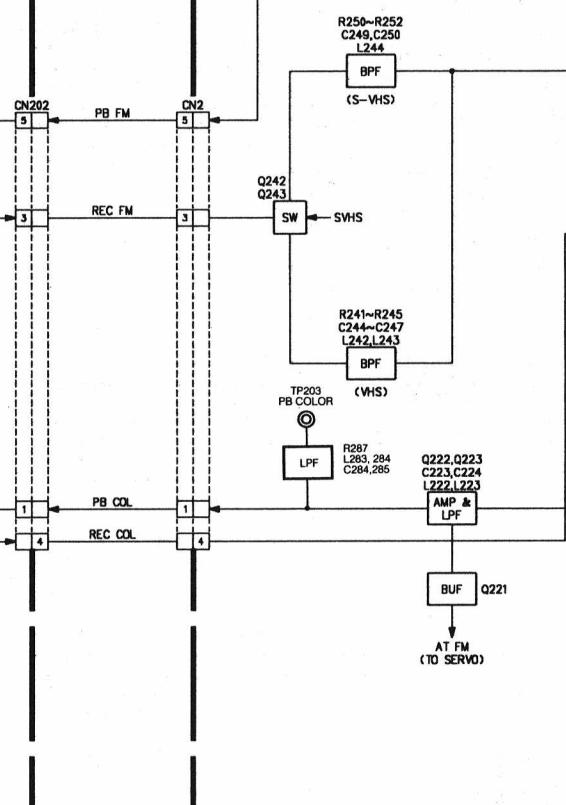


8 9 Y/C SEPA

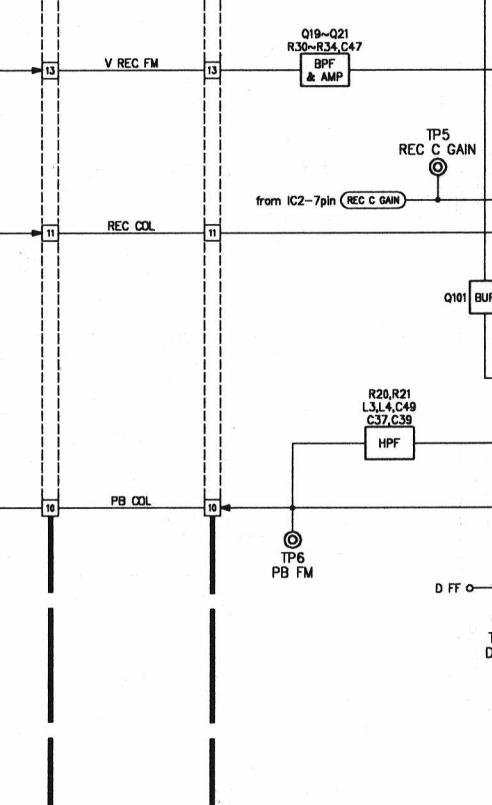




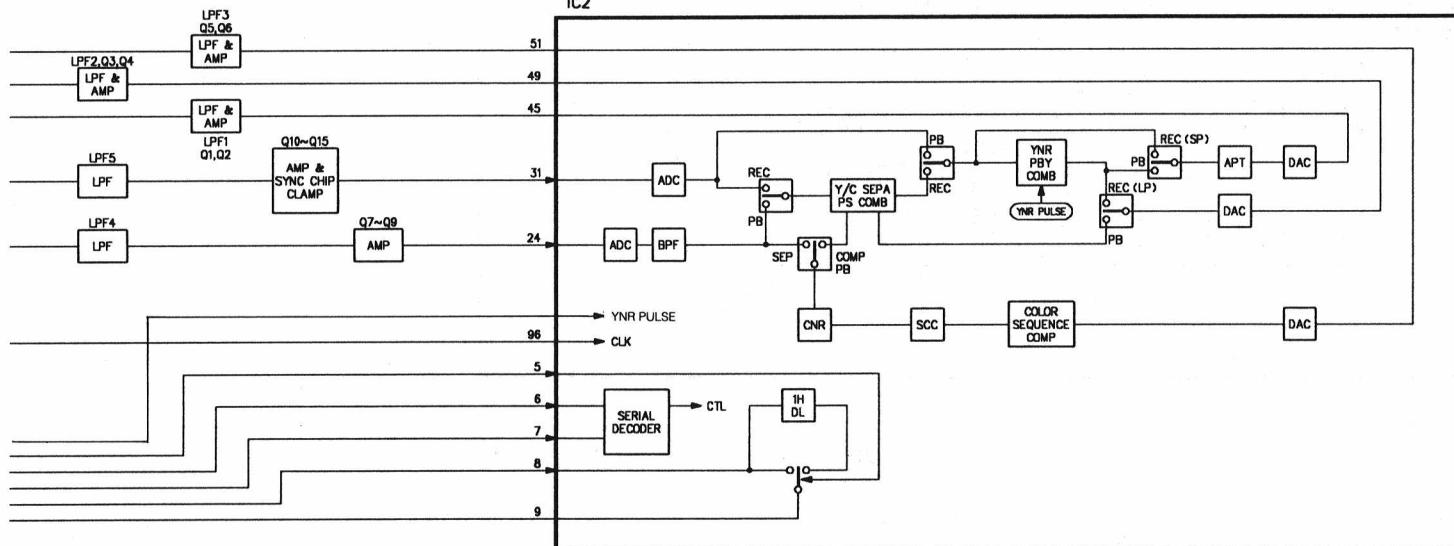
0 [3] MAIN (VIDEO)



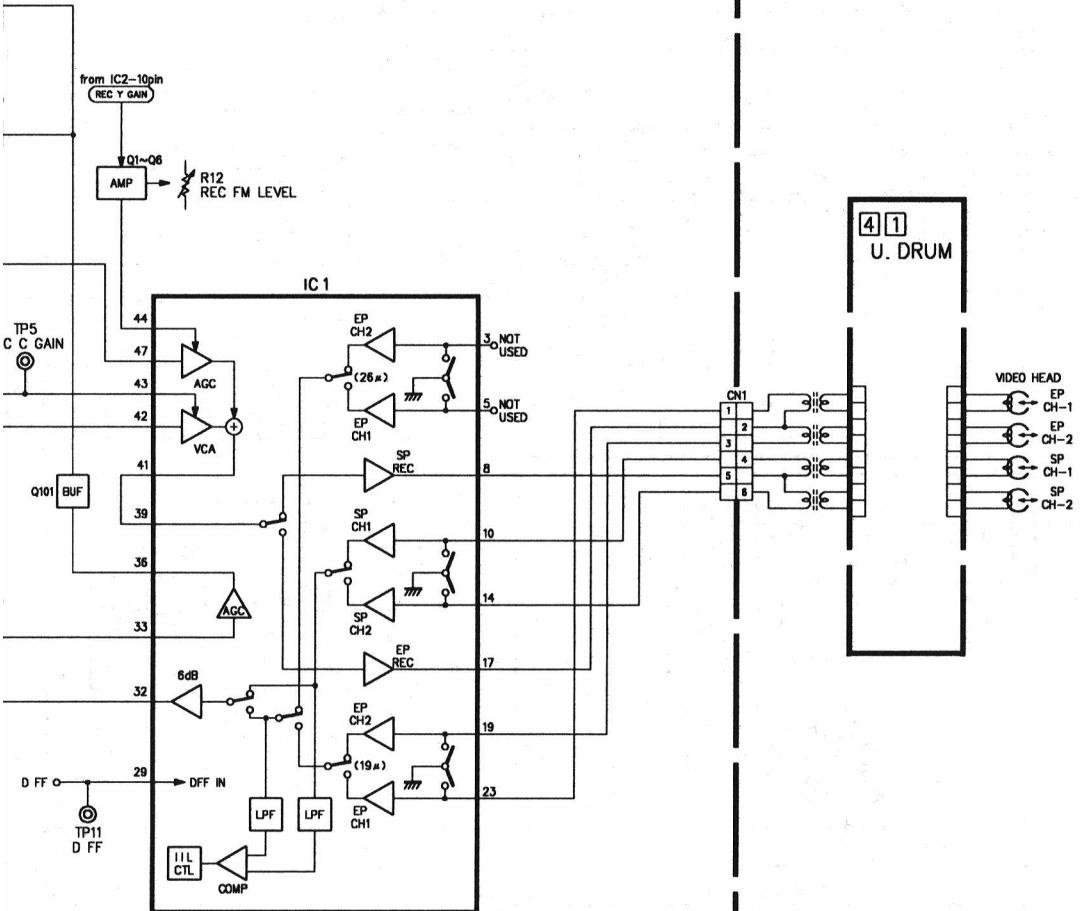
4 [3] PRE/REC



IC2



R114
S-VHS EP
VIDEO EQ



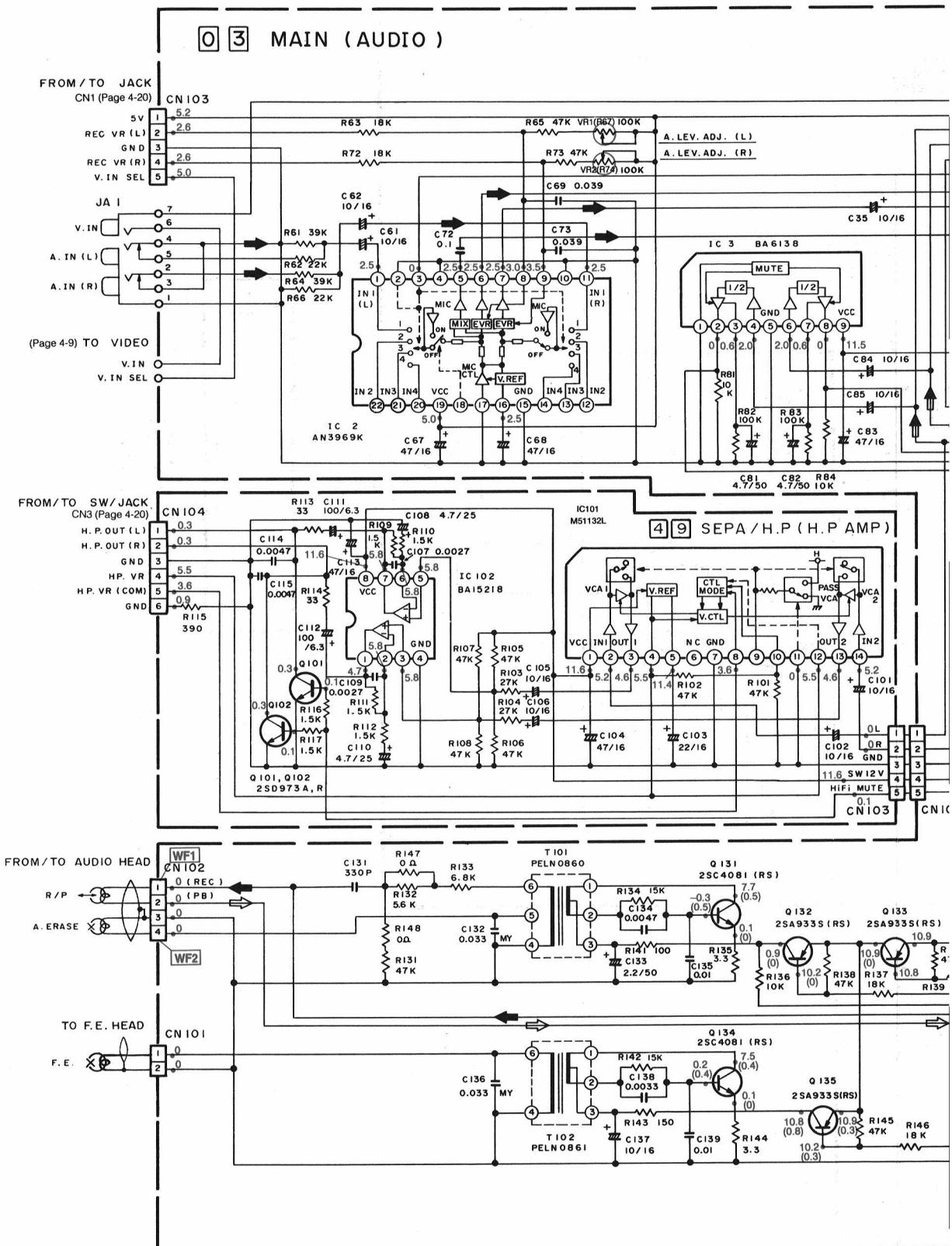
M

N

O

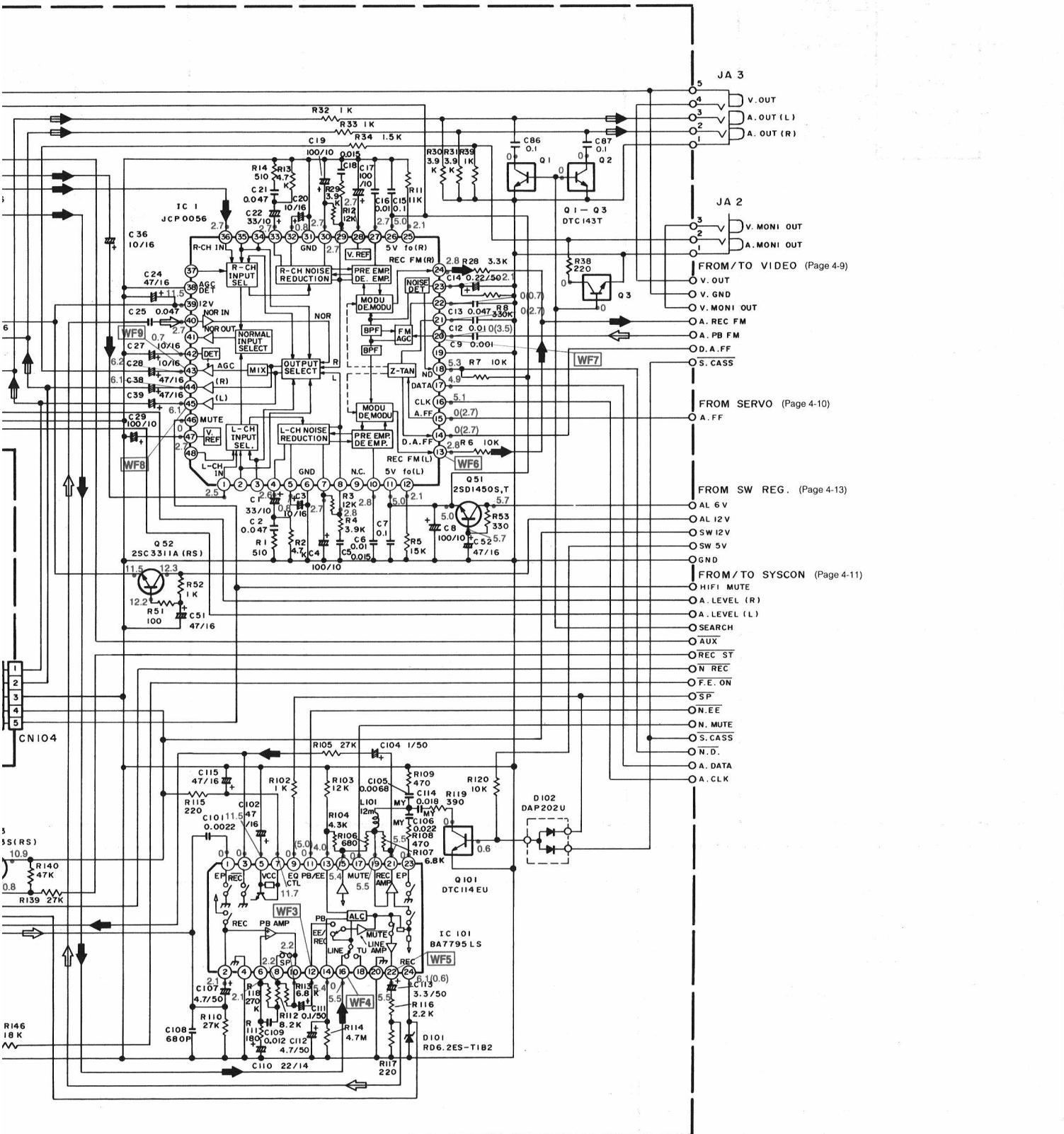
P

4.6 AUDIO AND SEPA/H.P SCHEMATIC DIAGRAM



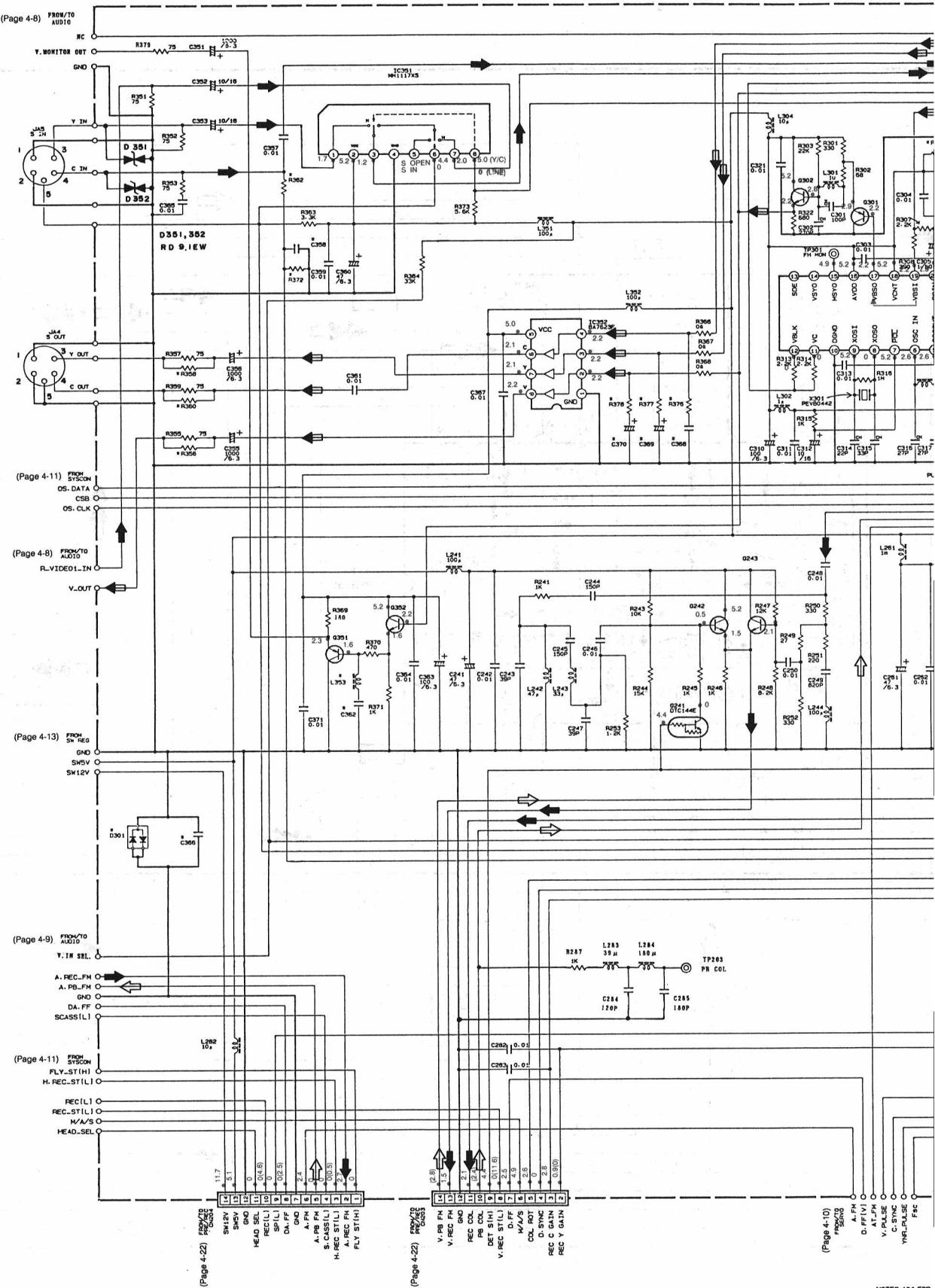
NOTES : UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

 ELECTROLYTIC
 CERAMIC



NOTE : • Refer to page 4-14 for SEPA/HP board.

4.7 VIDEO SCHEMATIC DIAGRAM



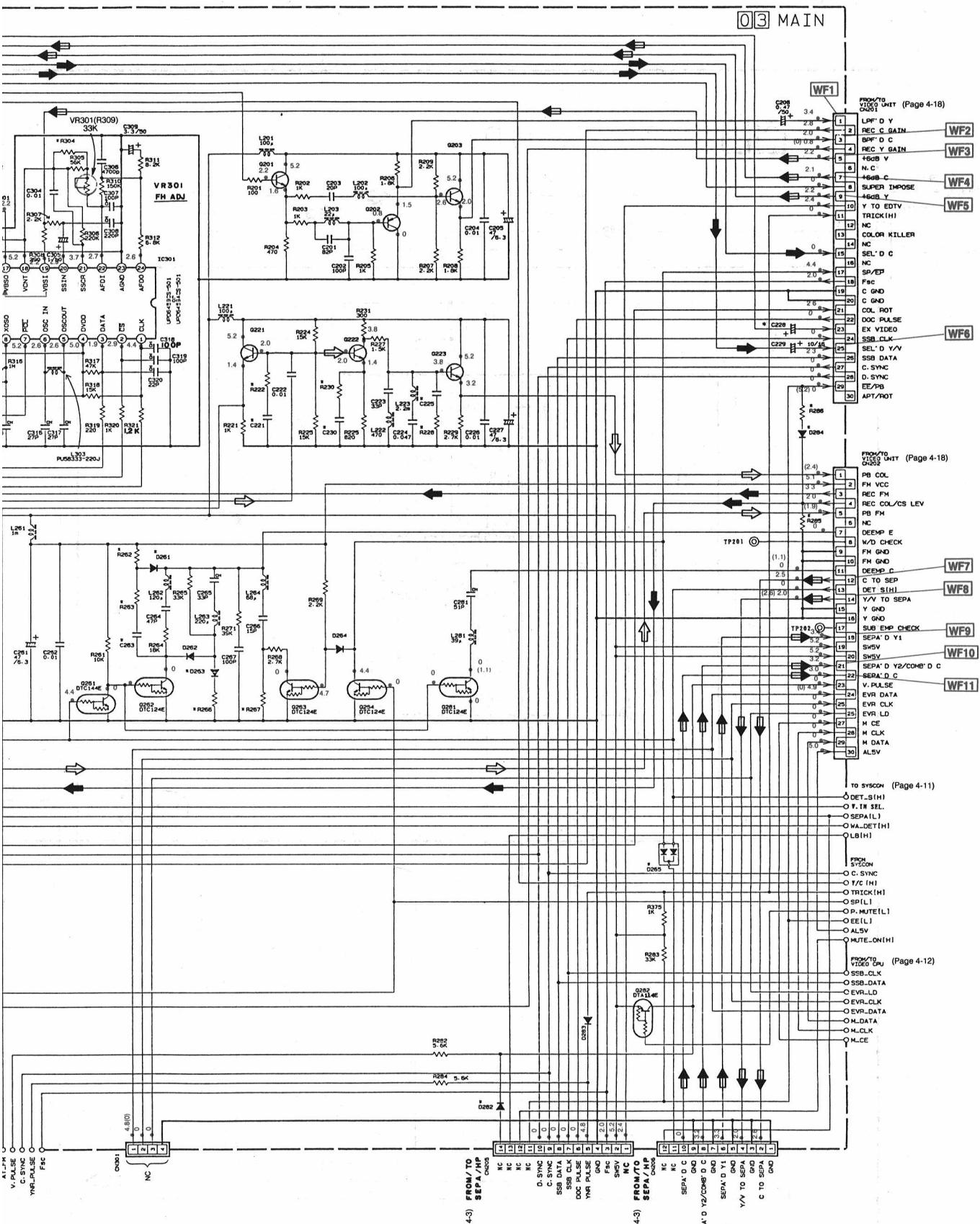
* MARK ELEMENTS ARE NOT MOUNTED.

NOTES: UNLESS
 ALL RESIS
 ALL INDUC
 ALL CAPAC




 ALL NPN TYPE
 ALL PNP TYPE
 ALL DIODES A

A **B** **C** **D**

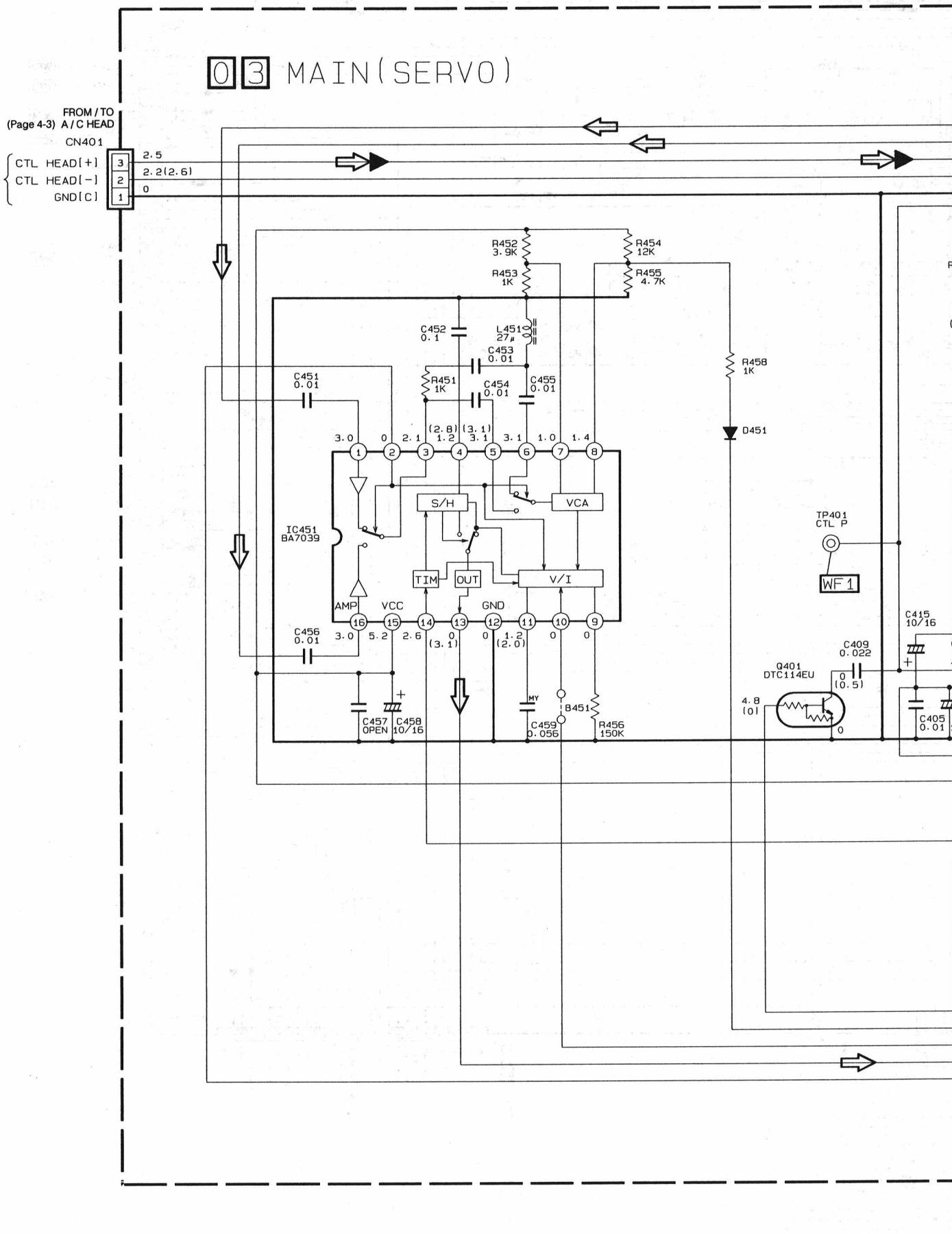


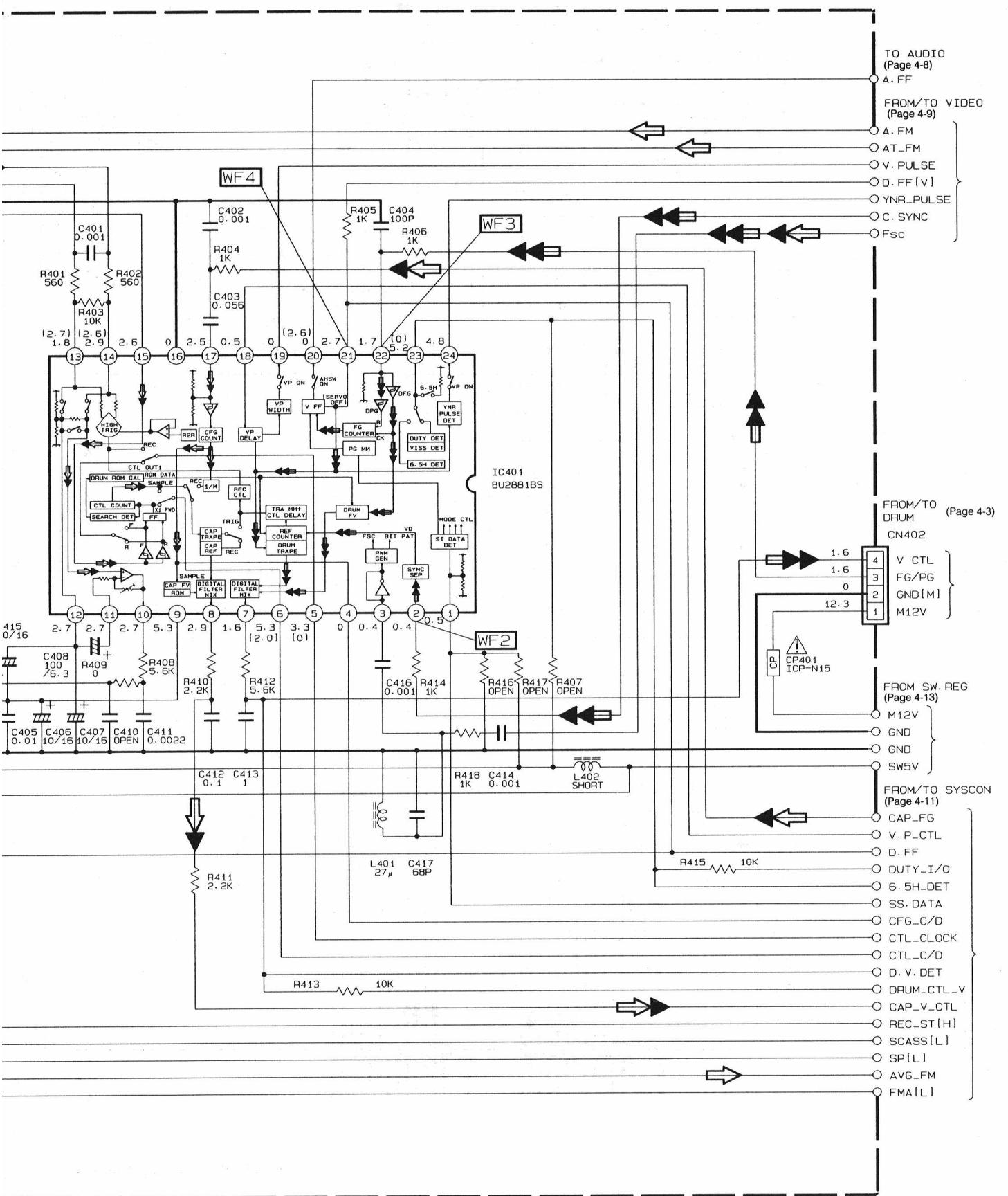
NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

-  ELECTROLYTI
-  CERAMIC
-  MYLER
-  NON POLAR

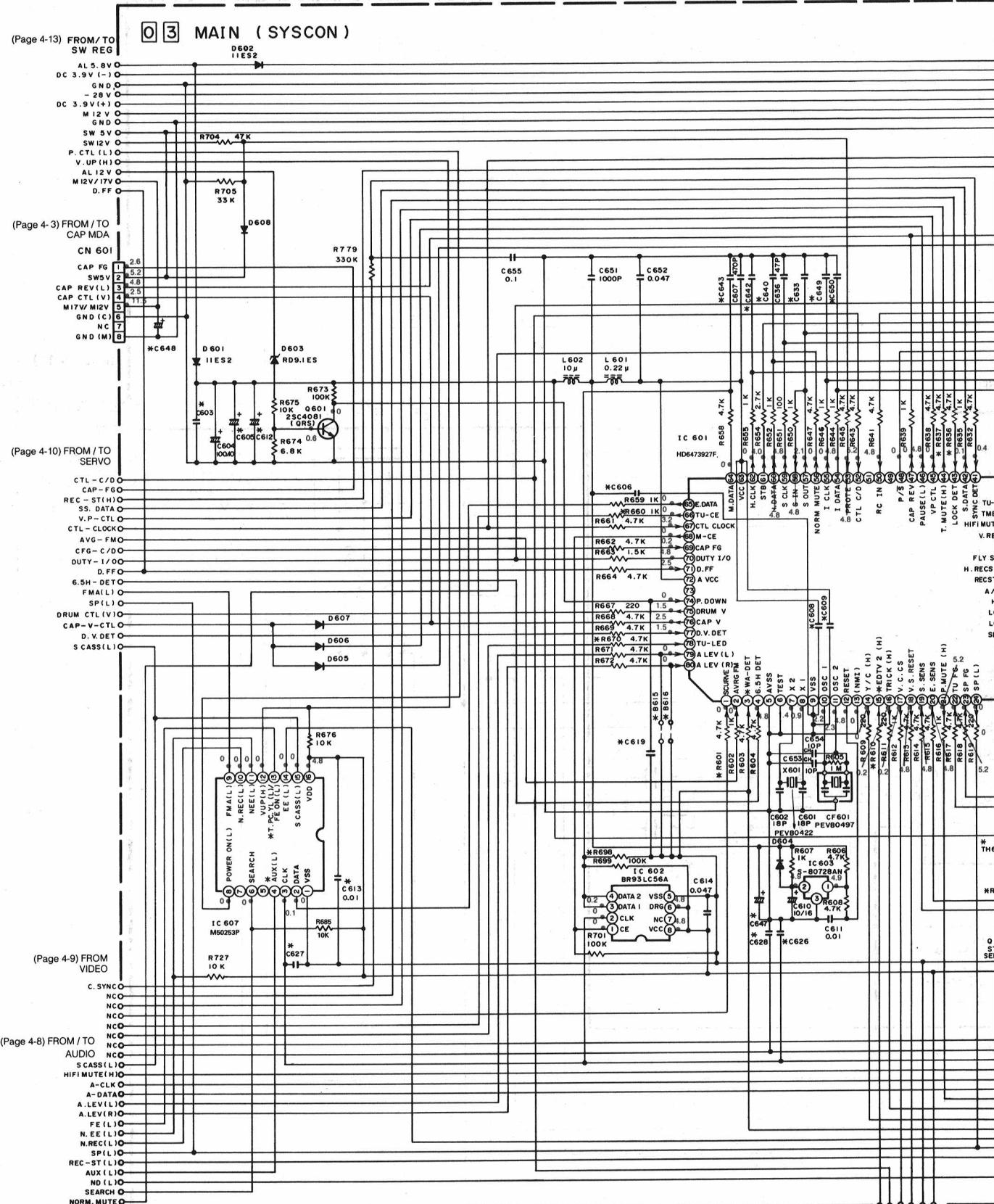
ALL NPN TYPE TRANSISTORS ARE 2SC4081(QRS).
ALL PNP TYPE TRANSISTORS ARE 2SA1576(QRS).
ALL DIODES ARE 1SS133 or MA165 or IN4148M.

4.8 SERVO SCHEMATIC DIAGRAM





4.9 SYS CON SCHEMATIC DIAGRAM



NOTES : UNLESS OTHERWISE SPECIFIED.

ALL RESISTANCE VALUES ARE IN OHMS.

ALL INDUCTANCE VALUES ARE IN H

ALL CAPACITANCE V

+ ELECTR

**ELECTROLYTIC
CERAMIC**

ALL DIODES ARE ISS133

* MARK ELEMENTS ARE NOT MOUNTED.

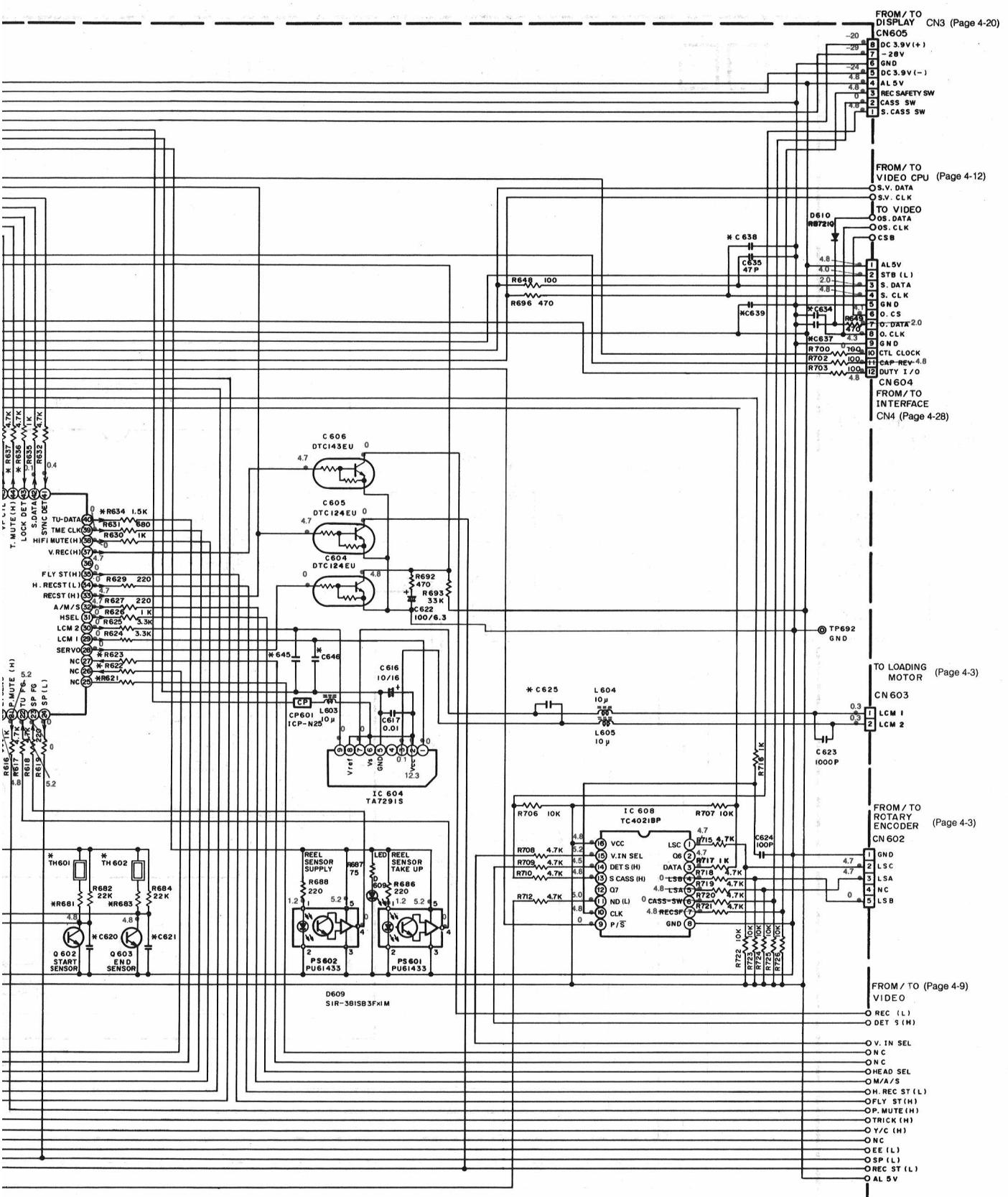
(Page 4-12) FROM / TO VIDEO CPU

A

8

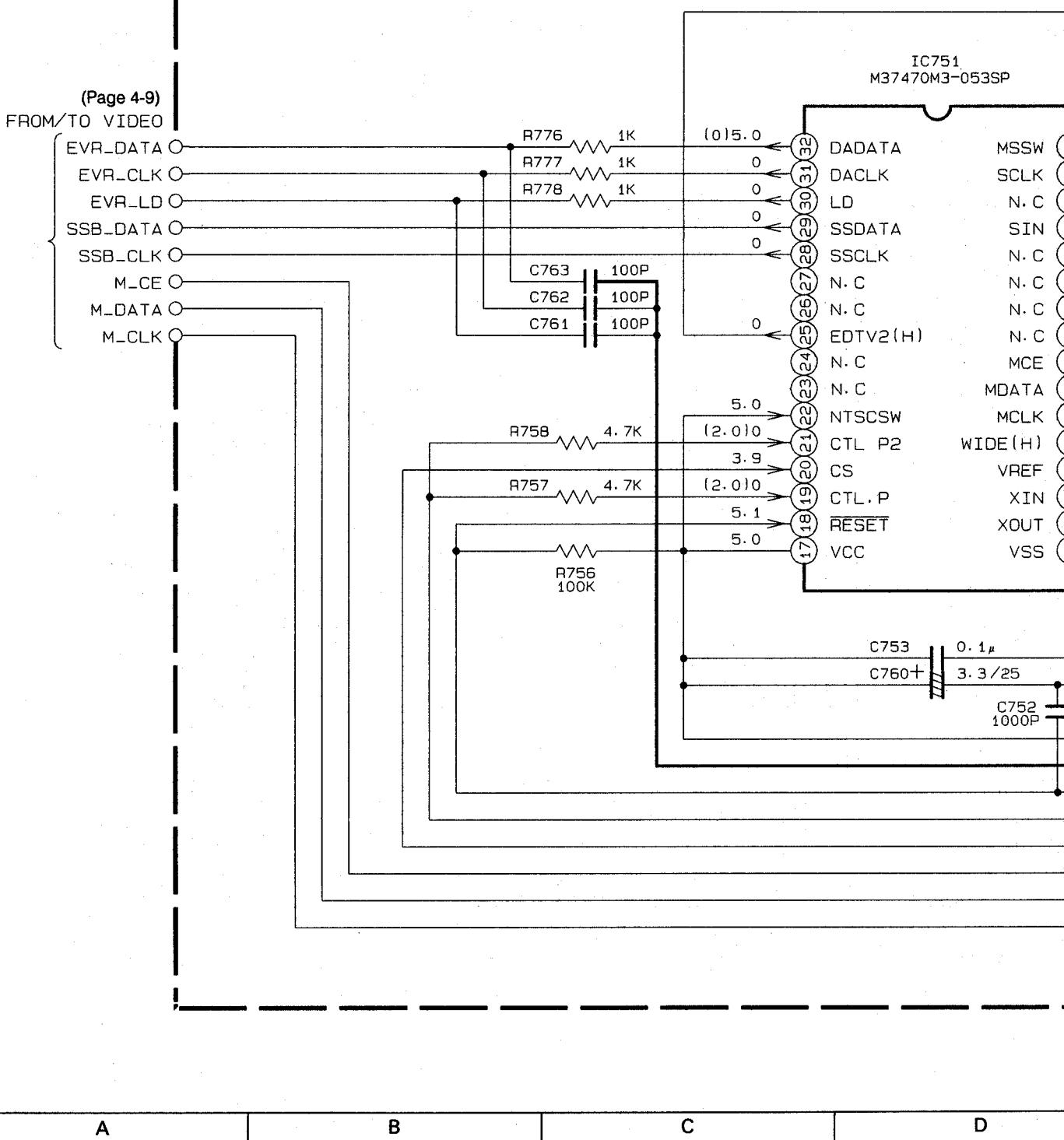
6

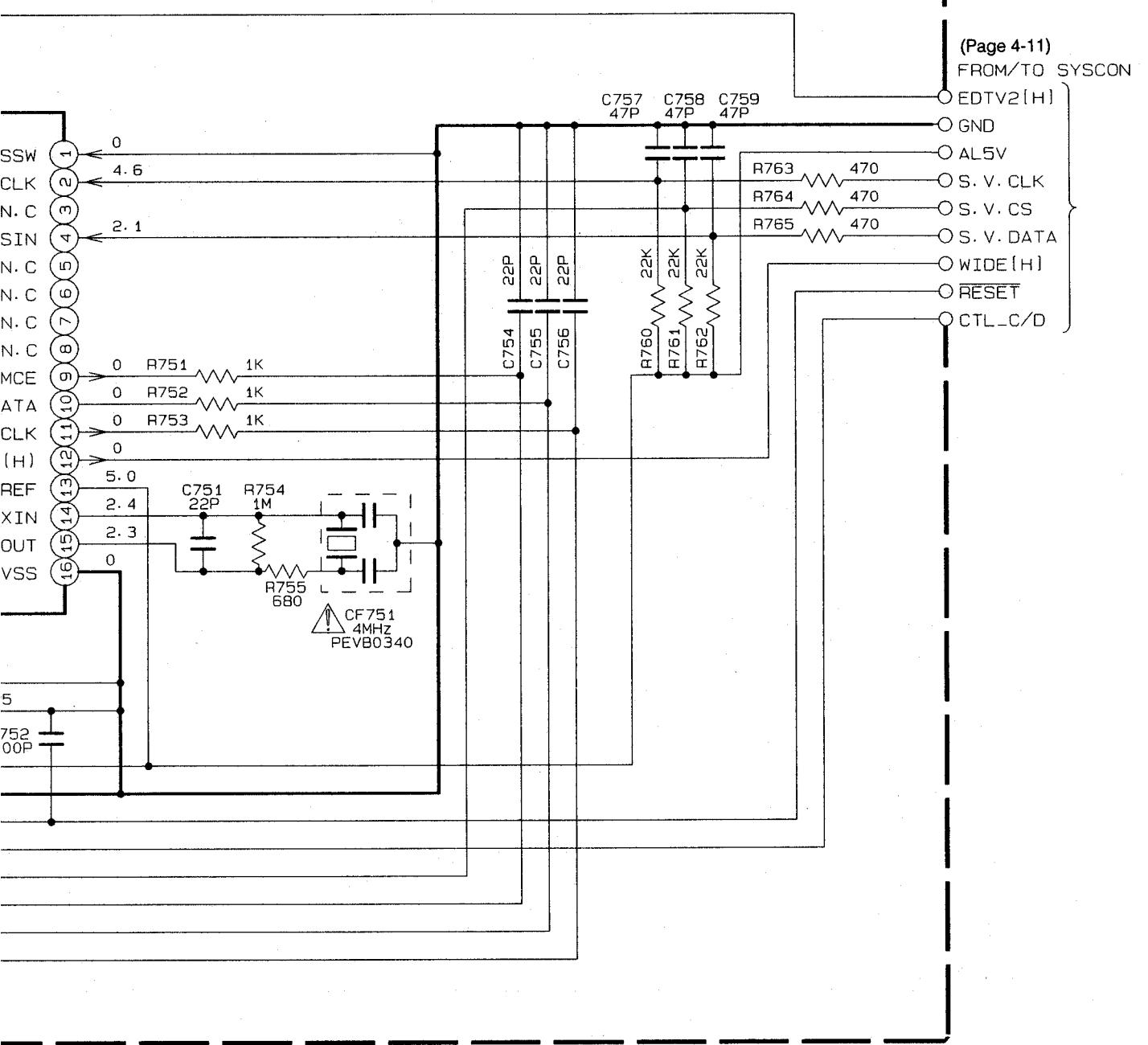
D



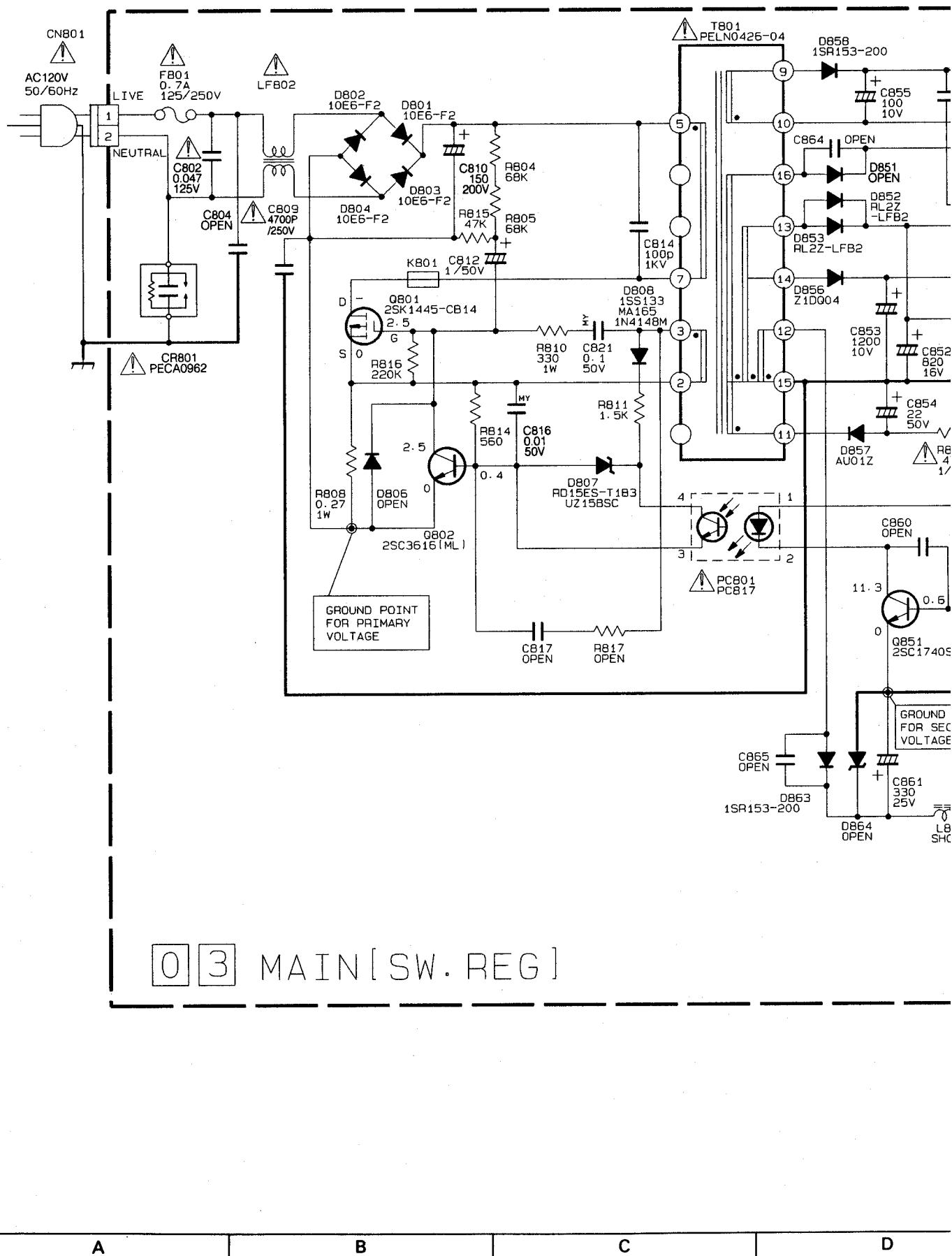
4.10 VIDEO CPU SCHEMATIC DIAGRAM

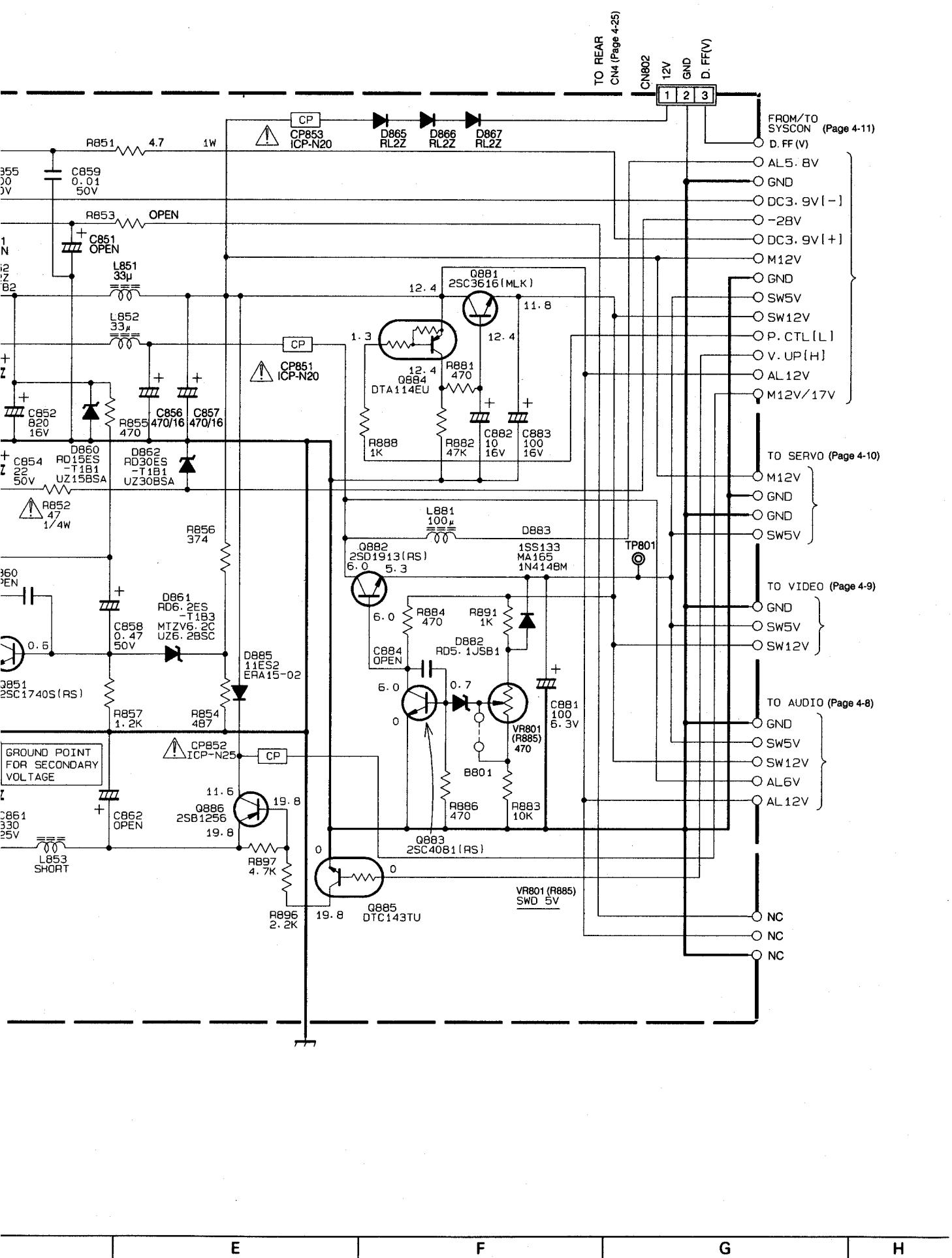
03 MAIN(VIDEO CPU)



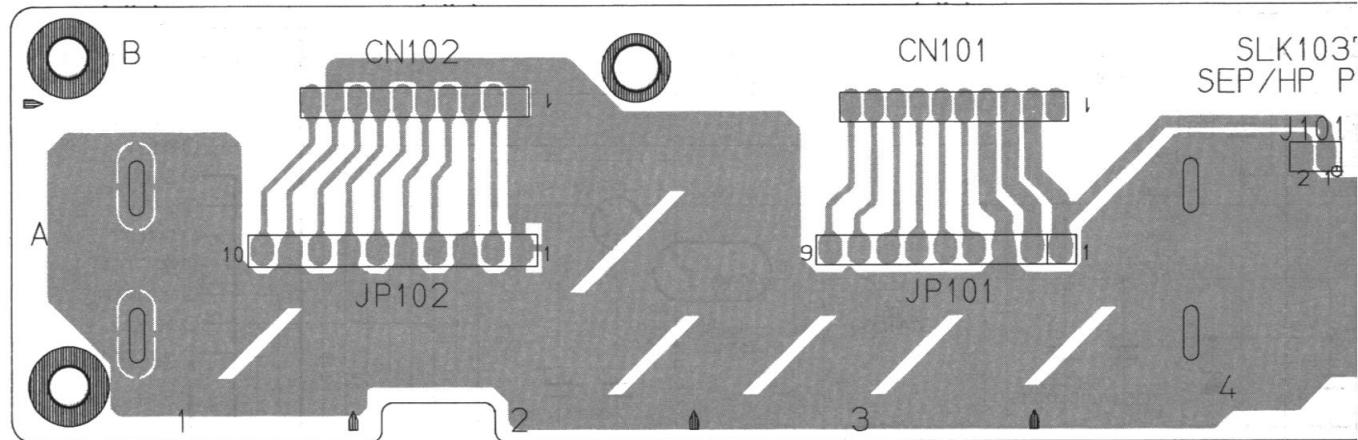


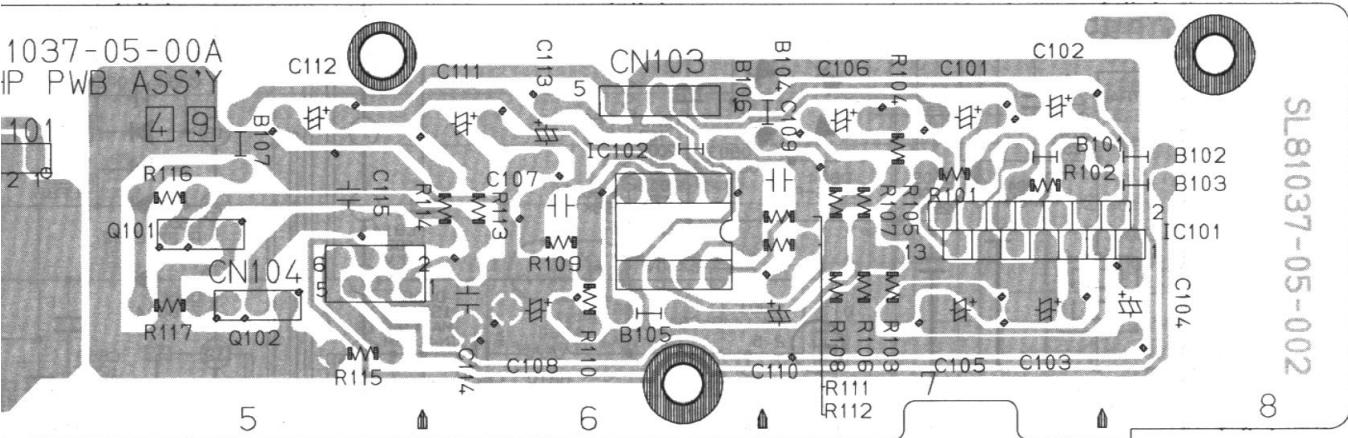
4.11 SWITCHING REGULATOR SCHEMATIC DIAGRAM





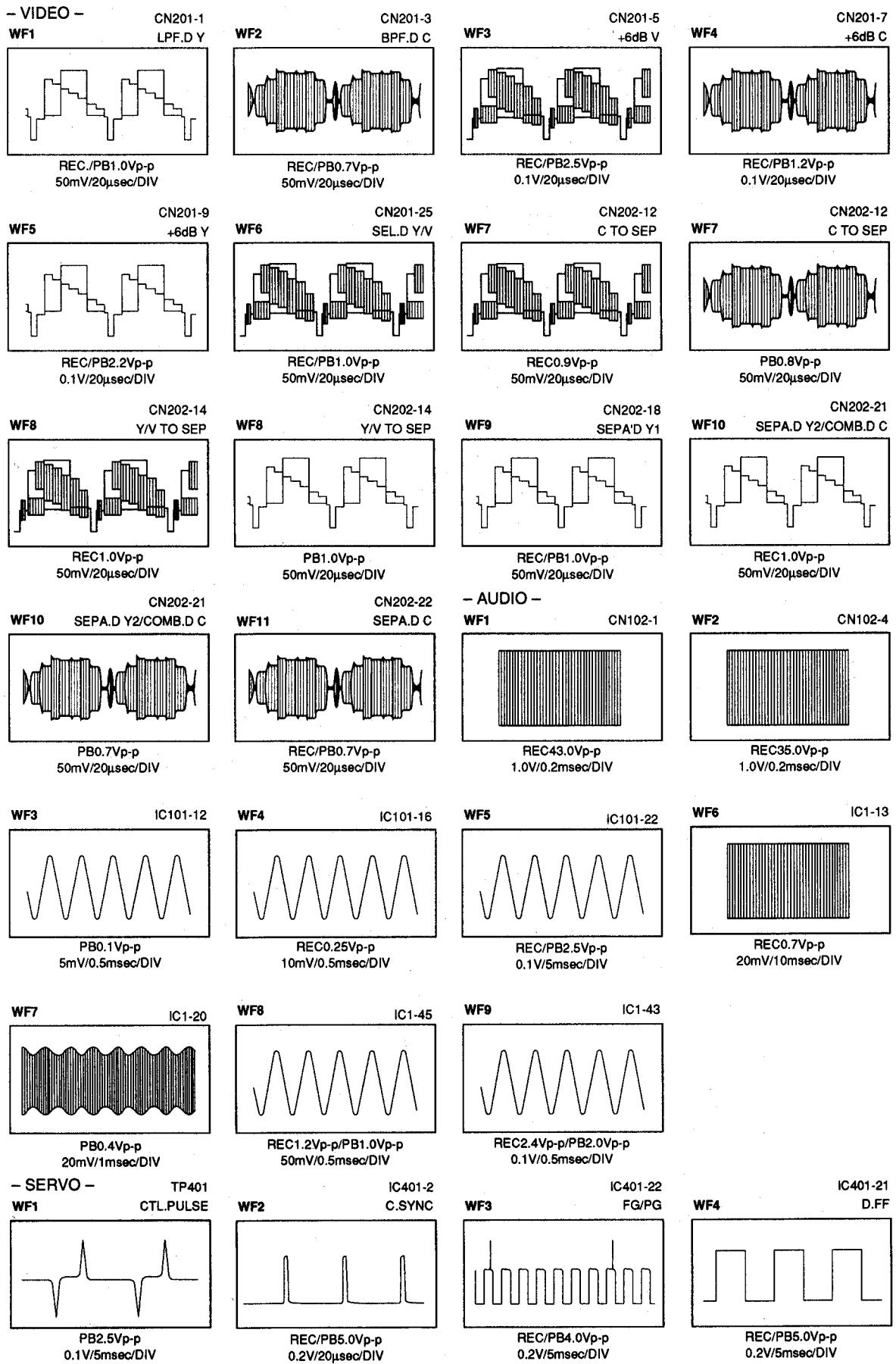
4.12 SEPA/H.P CIRCUIT BOARD





SLK81037-002

NOTE : • Refer to page 4-3 and 4-8 for SEPA/HP schematic diagram.

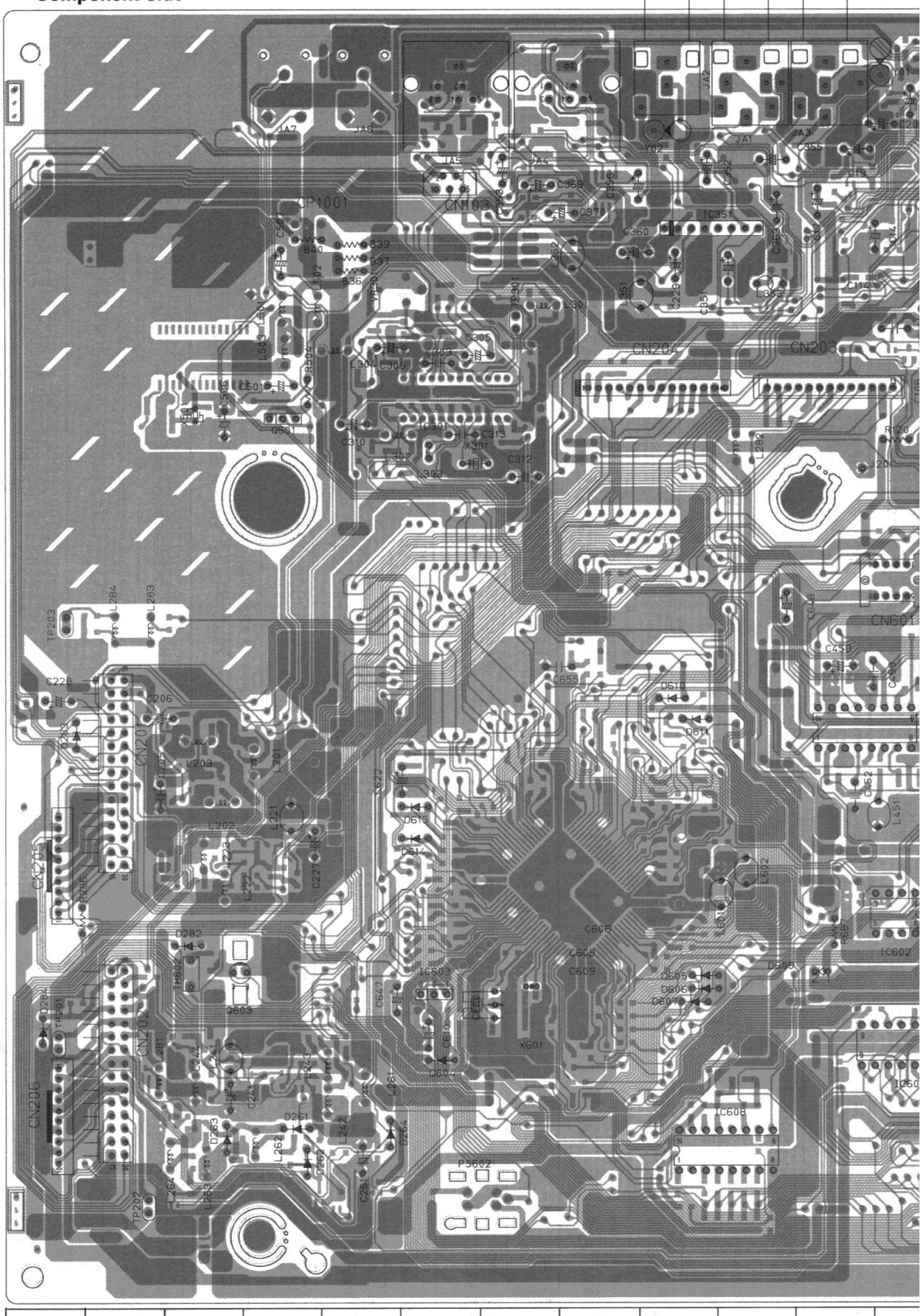


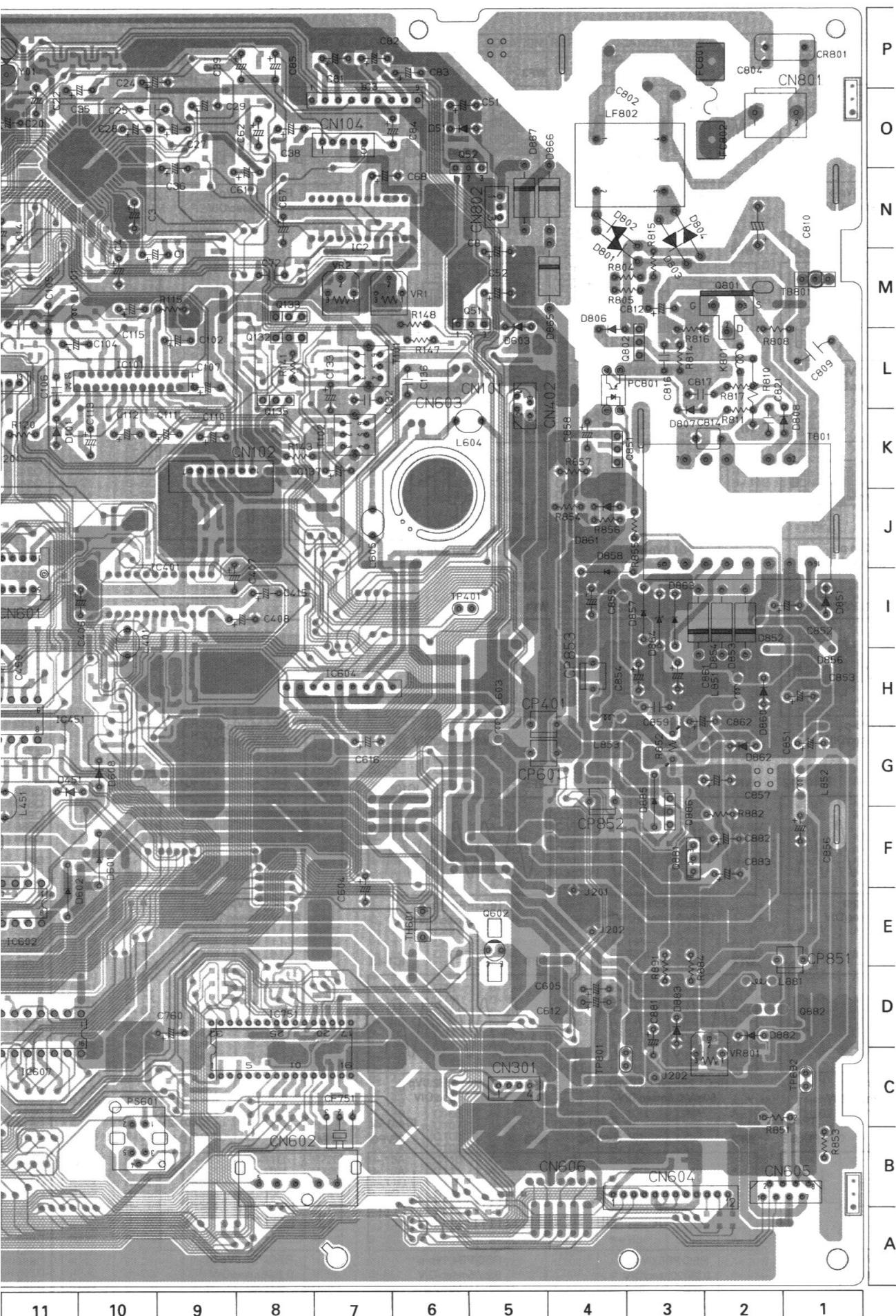
4.13 MAIN CIRCUIT BOARD

COMPONENT PARTS LOCATION GUIDE <for MAIN>

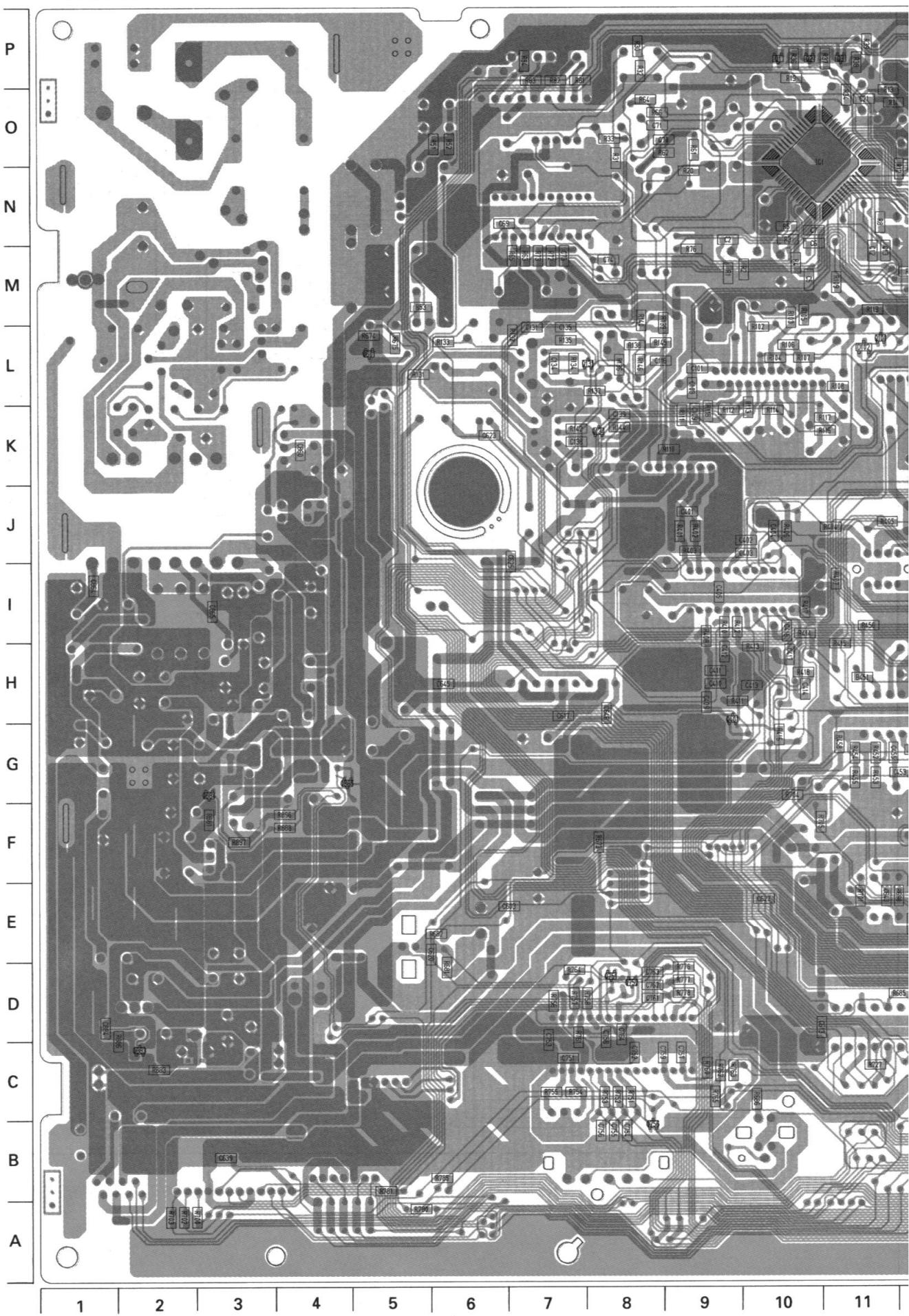
REF.NO.	LOCATION														
IC1	B- 11O	D862	A- 2G	R245	B- 19D	R610	B- 17E	R764	B- 7D	C139	B- 8K	C507	A- 19M	L302	A- 17K
IC2	A- 8N	D863	A- 3I	R246	B- 19C	R611	B- 17E	R765	B- 9C	C201	B- 20G	C508	B- 21L	L303	A- 17K
IC3	A- 8O	D864	A- 3I	R247	B- 19C	R612	B- 17E	R776	B- 9D	C202	B- 21G	C601	B- 16D	L304	A- 18L
IC101	A- 9L	D865	A- 5N	R248	B- 20C	R613	B- 17E	R777	B- 9D	C203	B- 20G	C602	B- 16D	L351	A- 15M
IC301	A- 18K	D866	A- 5O	R249	B- 20D	R614	B- 17E	R778	B- 9D	C204	B- 20G	C603	B- 7E	L352	A- 15M
IC351	A- 14N	D867	A- 5O	R250	B- 20D	R615	B- 17E	R779	B- 15I	C205	A- 21G	C604	A- 7F	L353	A- 13M
IC352	B- 15N	D882	A- 2D	R251	B- 20D	R616	B- 17E	R780	B- 5A	C206	A- 21H	C605	A- 4D	L401	A- 10H
IC401	A- 10I	D883	A- 3D	R252	B- 20C	R617	B- 17F	R781	B- 5B	C221	B- 19F	C606	A- 16E	L451	A- 12F
IC451	A- 12G	D885	A- 3G	R253	B- 19C	R618	B- 17F	R785	B- 6B	C222	B- 19F	C607	B- 14E	L501	A- 19M
IC501	B- 20L			R261	B- 18B	R619	B- 17F	R804	A- 3M	C223	B- 20F	C608	A- 16E	L502	A- 19M
IC601	B- 15F	R1	B- 9M	R262	B- 18C	R621	B- 17F	R805	A- 3M	C224	B- 20F	C609	A- 16D	L503	A- 19L
IC602	A- 11F	R2	B- 10M	R263	B- 19B	R622	B- 17F	R808	A- 1L	C225	B- 20F	C610	A- 17D	L601	A- 14E
IC603	A- 17D	R3	B- 10N	R264	B- 19B	R623	B- 17F	R810	A- 2K	C226	B- 19F	C611	B- 17D	L602	A- 13F
IC604	A- 8H	R4	B- 10M	R265	B- 20C	R624	B- 17G	R811	A- 2K	C227	A- 19F	C612	A- 4D	L603	A- 5G
IC607	A- 11D	R5	B- 10N	R266	B- 20B	R625	B- 17G	R814	A- 3L	C228	A- 22H	C613	B- 11D	L604	A- 6K
IC608	A- 14B	R6	B- 15L	R268	B- 20B	R626	B- 17F	R815	A- 3M	C229	A- 14M	C614	B- 12E	L605	A- 7J
IC751	A- 9C	R7	B- 12M	R269	B- 18B	R627	B- 16G	R816	A- 3L	C230	B- 20F	C616	A- 7G	L851	A- 2H
Q1	B- 10P	R11	B- 12N	R282	B- 15J	R630	B- 16G	R851	A- 2C	C242	B- 20C	C619	B- 15D	L853	A- 4H
Q2	B- 10P	R12	B- 12N	R283	B- 18D	R631	B- 16G	R852	A- 3G	C243	B- 18C	C620	B- 6E	L881	A- 2D
Q3	B- 11P	R13	B- 11O	R284	B- 22F	R632	B- 15H	R853	A- 1B	C244	B- 18D	C621	B- 19E		
Q51	A- 6M	R14	B- 12O	R285	B- 22D	R634	B- 16G	R854	A- 4J	C245	B- 18D	C622	A- 18G	TP201	A- 22D
Q52	A- 6N	R15	B- 12N	R286	A- 22E	R635	B- 15G	R855	A- 3J	C246	B- 19D	C623	B- 6K	TP202	A- 21B
Q101	B- 11L	R19	B- 10P	R287	B- 20I	R636	B- 15H	R856	A- 4J	C247	B- 19D	C624	B- 13A	TP203	A- 22I
Q131	B- 8L	R20	B- 9N	R301	B- 16L	R637	B- 15G	R857	A- 4K	C248	B- 21D	C625	B- 7J	TP301	A- 16M
Q132	A- 8L	R28	B- 15L	R302	B- 16L	R638	B- 15H	R881	A- 3F	C249	B- 20D	C626	B- 16H	TP401	A- 6I
Q133	A- 8M	R29	B- 12N	R303	B- 16M	R639	B- 15H	R882	A- 2F	C250	B- 20D	C627	B- 10E	TP692	A- 1C
Q134	B- 8K	R30	B- 8P	R304	B- 18L	R641	B- 15G	R883	B- 2C	C261	A- 18B	C628	B- 16G	TP801	A- 4C
Q135	A- 8L	R31	B- 8O	R305	B- 18L	R643	B- 15G	R884	A- 3D	C262	B- 18B	C633	B- 14G		
Q201	B- 20G	R32	B- 8P	R306	B- 17M	R644	B- 14G	R886	B- 2D	C263	B- 19B	C634	B- 14H	CF601	A- 16D
Q202	B- 21H	R33	B- 8O	R307	B- 17M	R645	B- 15G	R888	B- 4F	C264	B- 19C	C635	B- 14H	CF751	A- 7C
Q203	B- 20G	R34	B- 11O	R308	B- 17M	R646	B- 14G	R891	A- 3D	C265	B- 20C	C636	B- 14G		
Q221	B- 19F	R36	B- 10P	R310	B- 18M	R647	B- 14G	R896	B- 4F	C266	B- 20B	C637	B- 14H	CN101	A- 6L
Q222	B- 20F	R37	B- 11P	R311	B- 18L	R648	B- 14G	R897	B- 3F	C267	B- 20C	C638	B- 14G	CN102	A- 8K
Q223	B- 20F	R38	B- 11P	R312	B- 18L	R649	B- 14H			C281	B- 21D	C639	B- 3B	CN103	A- 17N
Q241	B- 19C	R39	B- 11P	R313	B- 16K	R650	B- 14F	VR1	A- 6M	C282	B- 13K	C640	B- 14F	CN104	A- 7O
Q242	B- 19C	R51	B- 6O	R314	B- 16K	R651	B- 14F	VR2	A- 7M	C283	B- 13K	C642	B- 13F	CN201	A- 21H
Q243	B- 19C	R52	B- 6O	R315	B- 17K	R652	B- 14F	VR301	A- 17M	C284	B- 21I	C643	B- 11E	CN202	A- 21E
Q261	B- 18B	R53	B- 5M	R316	B- 17K	R654	B- 14F	VR801	A- 2C	C285	B- 21I	C645	B- 6H	CN203	A- 13L
Q262	B- 19B	R61	B- 9O	R317	B- 17K	R655	B- 14F			C301	B- 16M	C646	B- 8H	CN204	A- 15L
Q263	B- 20B	R62	B- 9O	R318	B- 18K	R658	B- 14F	C1	A- 10M	C302	B- 16M	C647	B- 8D	CN205	A- 22G
Q264	B- 18B	R63	B- 7M	R319	B- 18K	R659	B- 14E	C2	B- 9N	C303	A- 17L	C648	A- 13I	CN206	A- 22C
Q281	B- 21C	R64	B- 8O	R320	B- 18K	R660	B- 14E	C3	A- 10N	C304	B- 17M	C649	B- 14G	CN301	A- 5C
Q282	B- 18E	R65	B- 7M	R321	B- 18K	R661	B- 14E	C4	A- 10M	C305	A- 17L	C650	B- 14G	CN402	A- 5K
Q301	B- 16L	R66	B- 8O	R322	B- 16M	R662	B- 14E	C5	B- 10M	C306	B- 18M	C651	B- 14F	CN601	A- 11I
Q302	B- 16M	R72	B- 7M	R351	B- 14O	R663	B- 14E	C6	B- 10M	C307	B- 18L	C652	B- 14E	CN602	A- 7B
Q351	B- 13M	R73	B- 7M	R352	B- 16O	R664	B- 14E	C7	B- 10N	C308	B- 17L	C653	B- 16E	CN603	A- 6K
Q352	B- 13N	R76	B- 9M	R353	B- 17O	R667	B- 15D	C8	A- 5M	C309	A- 18L	C654	B- 16D	CN604	A- 4B
Q401	B- 9H	R81	B- 8P	R355	B- 12O	R668	B- 15D	C9	B- 14L	C310	B- 18K	C655	A- 16H	CN605	A- 2B
Q501	A- 19K	R82	B- 7P	R356	B- 13O	R669	B- 15D	C10	B- 12M	C311	B- 17L	C751	B- 7C	CN606	A- 5B
Q601	B- 5L	R83	B- 7P	R357	B- 15O	R670	B- 15D	C11	B- 12M	C312	A- 16K	C752	B- 8C	CN801	A- 2O
Q602	A- 5E	R84	B- 7P	R358	B- 15O	R671	B- 15D	C12	B- 11M	C313	A- 17K	C753	B- 7D	CN802	A- 5N
Q603	A- 20E	R102	B- 10L	R359	B- 16O	R672	B- 15D	C13	B- 11M	C314	B- 17L	C754	B- 8B		
Q604	B- 17G	R103	B- 10M	R360	B- 16O	R673	B- 16F	C1	A- 10M	C315	B- 17L	C755	B- 8B	CP401	A- 5G
Q605	B- 17G	R104	B- 10L	R362	B- 17O	R674	B- 16F	C2	B- 9N	C303	A- 17L	C756	B- 8B	CP601	A- 5G
Q606	B- 16G	R105	B- 10M	R363	B- 14M	R675	B- 15L	C3	A- 10N	C304	B- 17M	C757	B- 9C	CP851	A- 2E
Q607	B- 16G	R106	B- 10L	R364	B- 17N	R676	B- 12D	C4	B- 12N	C318	B- 18L	C758	B- 8D	CP852	A- 4G
Q751	B- 8D	R107	B- 10L	R365	B- 16O	R681	B- 6D	C5	B- 12N	C319	B- 18L	C759	B- 9C	CP853	A- 4H
Q752	B- 8D	R108	B- 11L	R366	B- 16O	R682	B- 6E	C6	A- 12O	C320	B- 17L	C760	B- 10D	CP1001	A- 19N
Q756	B- 8B	R109	B- 11M	R367	B- 16N	R683	B- 20E	C20	B- 12I	C321	B- 16M	C761	B- 8D		
Q801	A- 2M	R110	B- 9K	R368	B- 16N	R684	B- 20D	C21	B- 11O	C351	A- 13M	C762	B- 8D	CR801	A- 1P
Q802	A- 3L	R111	B- 9K	R369	B- 13M	R685	B- 12D	C22	A- 11P	C352	A- 14O	C763	B- 8D	FC801	A- 2P
Q851	A- 4K	R112	B- 9K	R370	B- 13M	R686	B- 10C	C24	A- 10P	C353	A- 16O	C764	B- 8D	FC802	A- 2O
Q881	A- 3F	R113	B- 10K	R371	B- 13M	R687	B- 12E	C25	A- 10O	C355	A- 13O	C802	A- 4P		
Q882	A- 2D	R114	B- 10K	R372	B- 17O	R688	B- 17B	C27	A- 10O	C356	A- 15N	C804	A- 1P		
Q883	B- 2C	R115	B- 10M	R373	B- 14M	R689	B- 18F	C28	A- 9O	C357	B- 17O	C809	A- 1L	J201	A- 12K
Q884	B- 3G	R116	B- 11K	R375	B- 22G	R690	B- 18F	C29	A- 10N	C360	A- 15M	C814	A- 3K	J202	A- 4E
Q885	B- 4G	R117	B- 11K	R376	B- 16O	R691	B- 18G	C35	B- 17G	C36	B- 16O	C816	A- 3L	J2A	A- 14P
Q886	A- 3G	R118	B- 9K	R377	B- 15N	R692	B- 17G	C36	A- 10N	C360	B- 13M	C817	A- 2L	J3A	A- 12P
D1	B- 12N	R120	A- 11K	R379	B- 14O	R694	B- 16H	C39	A- 8P	C362	B- 13M	C818	A- 2K	J4A	A- 15P
D51	A- 6O	R131	B- 5L	R380	B- 15P	R696	B- 14H	C51	A- 6O	C363	A- 13N	C821	A- 2K	J4A	A- 15P
D101	A- 11K	R132	B- 6L	R401	B- 9J	R699	B- 12E	C61	A- 9N	C365	B- 17O	C852	A- 2H	J47	A- 18P
D261	A- 19C	R134	B- 7L	R402	B- 9J	R700	B- 3A	C62	A- 8O	C367	B- 15N	C853	A- 2H	J47	A- 19P
D262	A- 19B	R135	B- 7L	R403	B- 9J	R701	B- 11E	C67	A- 8N	C368	B- 16O	C854	A- 3H		
D263	A- 20C	R136	B- 8L	R404	B- 11J	R702	B- 2A	C68	A- 7N	C369	A- 16N	C855	A- 4I	K801	A- 2L
D264	A- 18C	R137	B- 8L	R405	B- 11J	R703	B- 2A	C69	B- 7N	C370	B- 13M	C857	A- 3G	LF802	A- 4O
D282	A- 20E	R138	B- 8L	R406	B- 10J	R704	B- 10G	C70	B- 9O	C401	B- 9J	C858	A- 4K		
D284	A- 22D	R140	B- 8M	R408	B- 9I	R706	B- 13C	C72	A- 8M	C402	B- 10J	C859	A- 3H	PC801	A- 4K
D451	A- 11G	R141	A- 8L	R410	B- 9I	R707	B- 14B	C73	B- 7M	C403	B- 10J	C860	A- 4K		
D601	A- 10F														

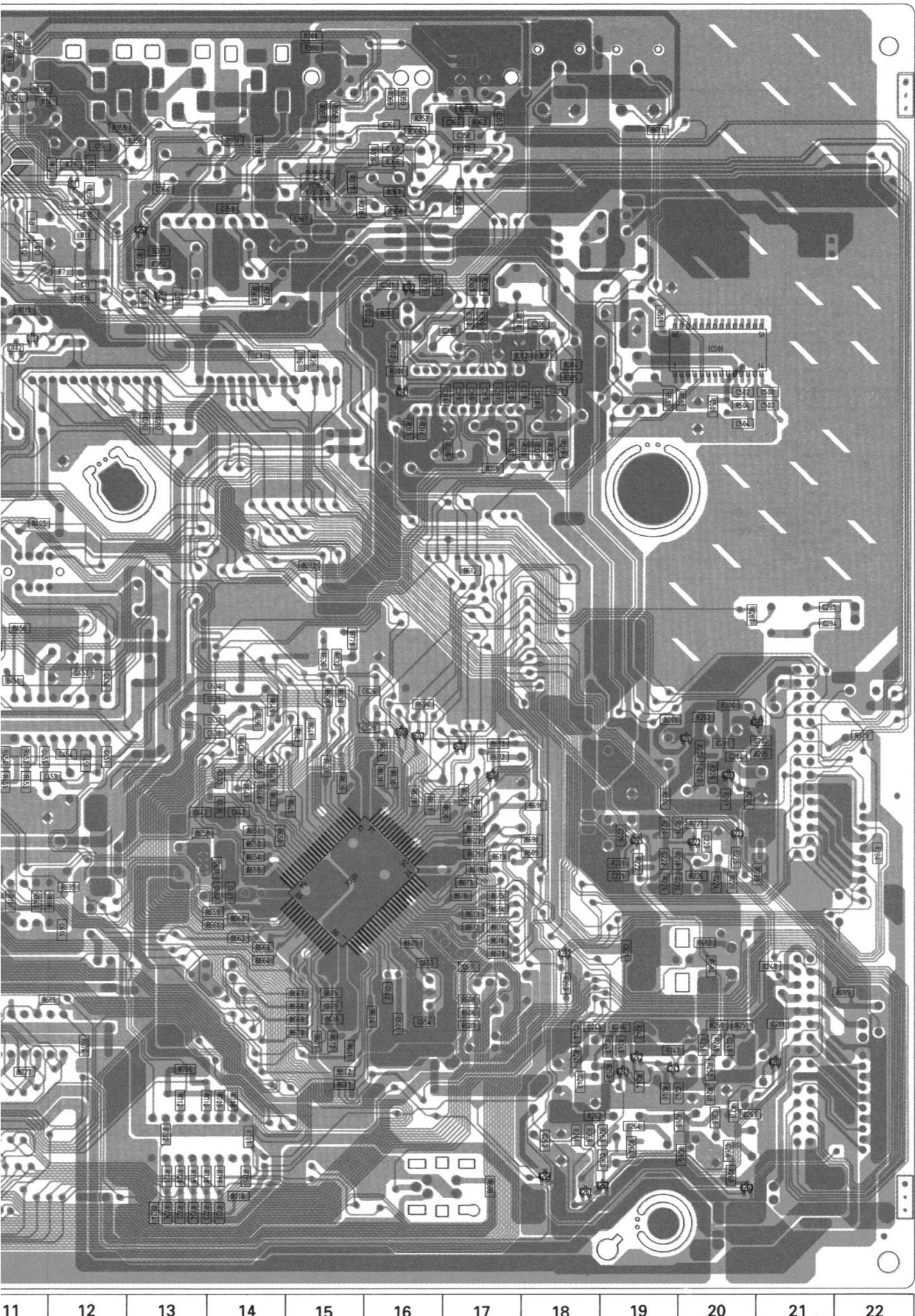
— Component Side —





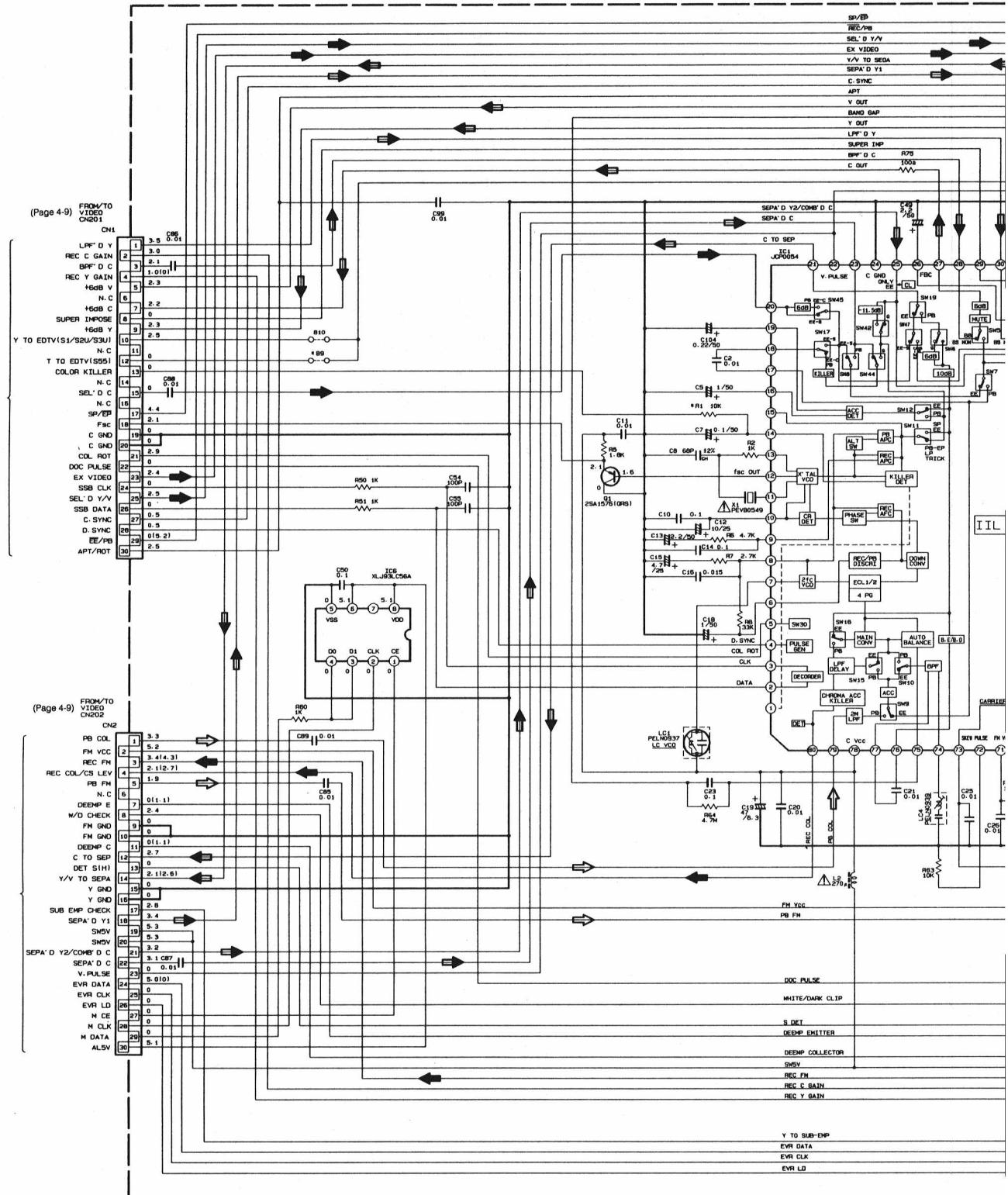
— Foil Side —





11 12 13 14 15 16 17 18 19 20 21 22

4.14 VIDEO UNIT SCHEMATIC DIAGRAM

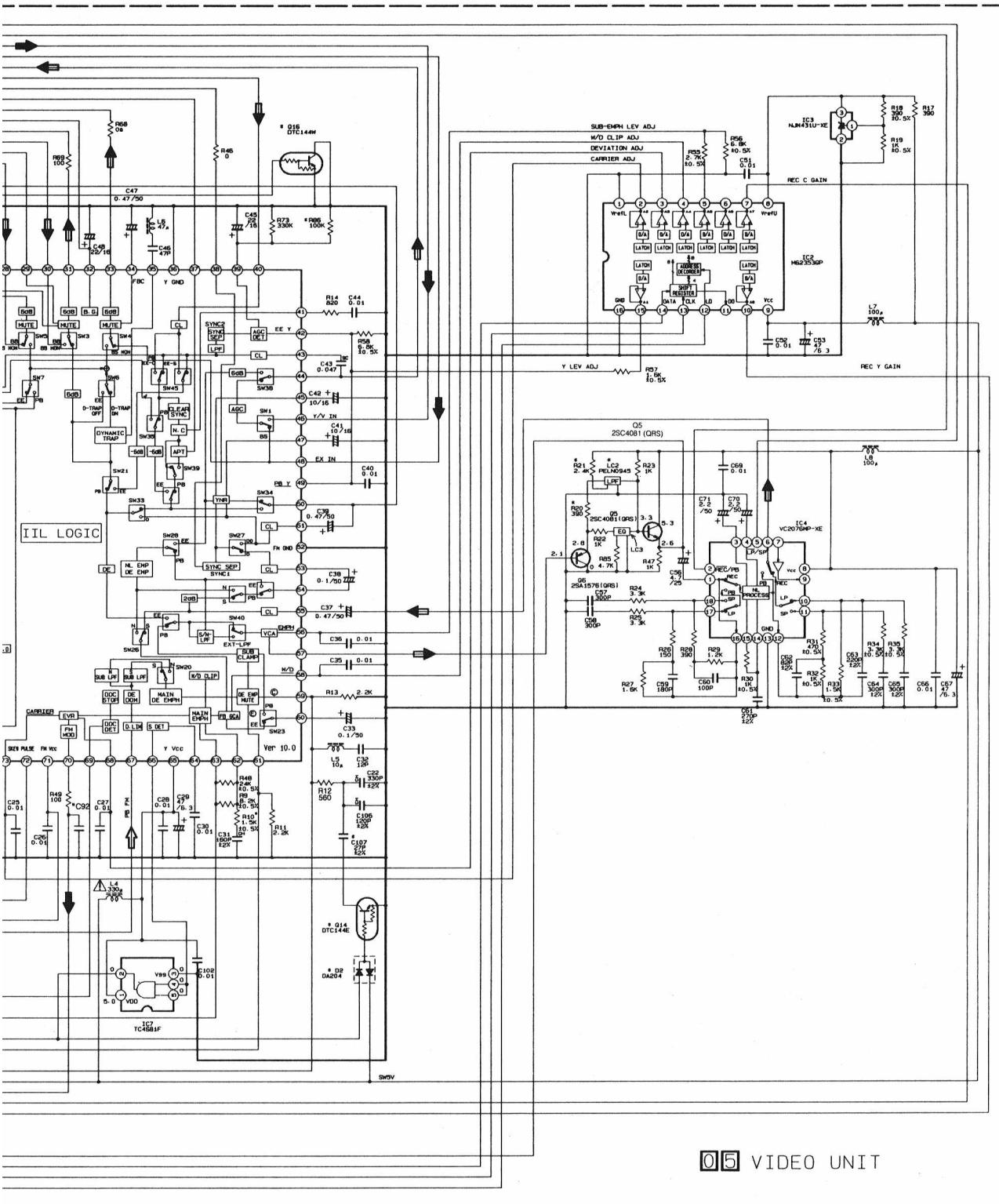


A

B

0

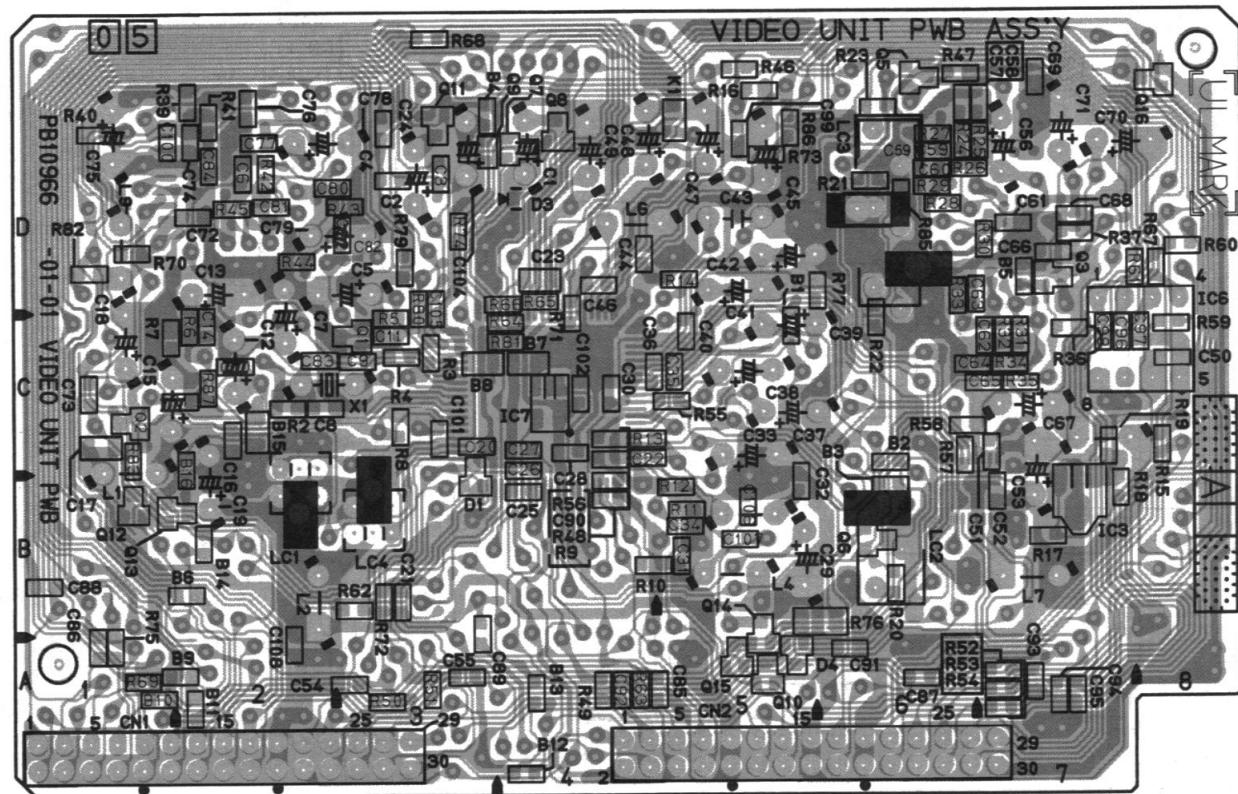
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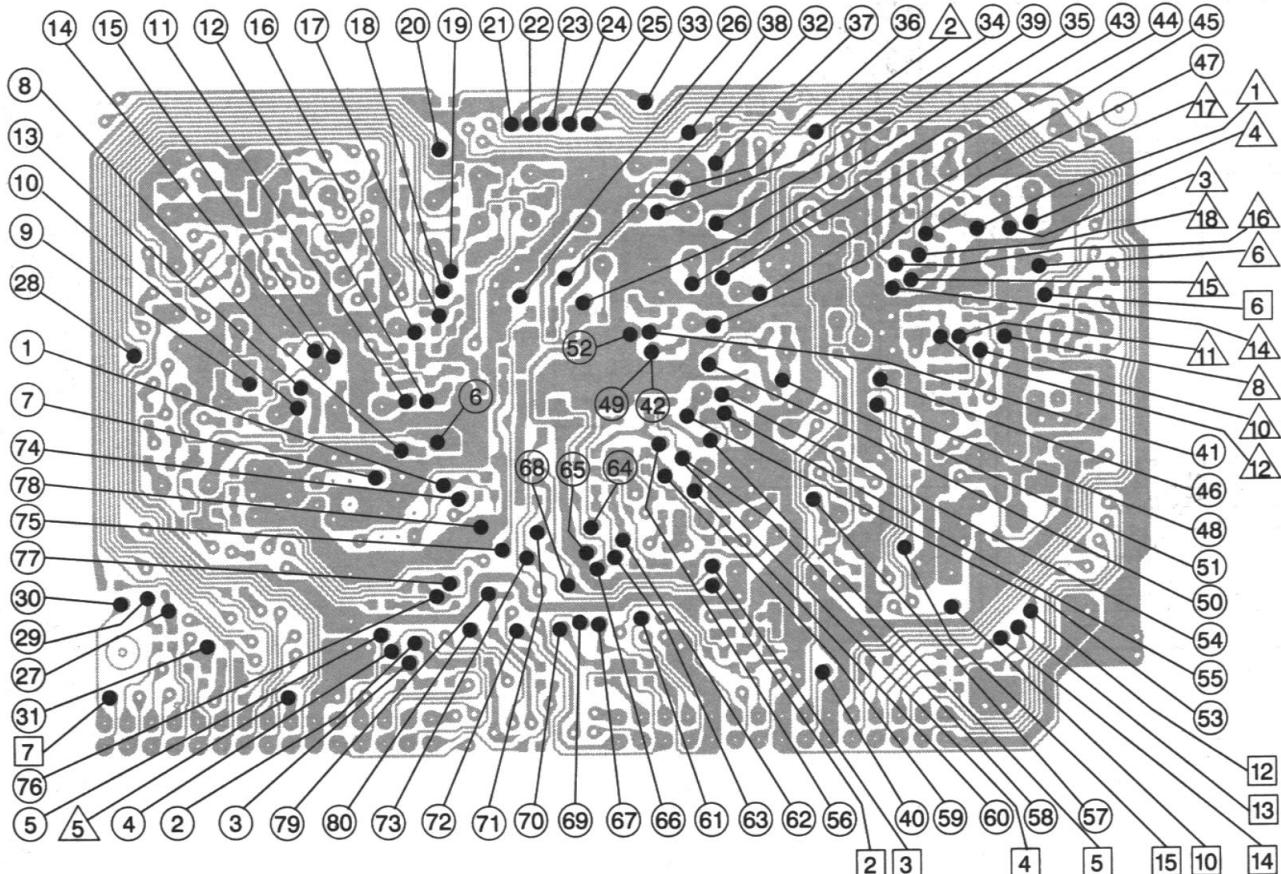
Note : * MARK ELEMENTS ARE NOT MOUNTED.

4.15 VIDEO UNIT CIRCUIT BOARD

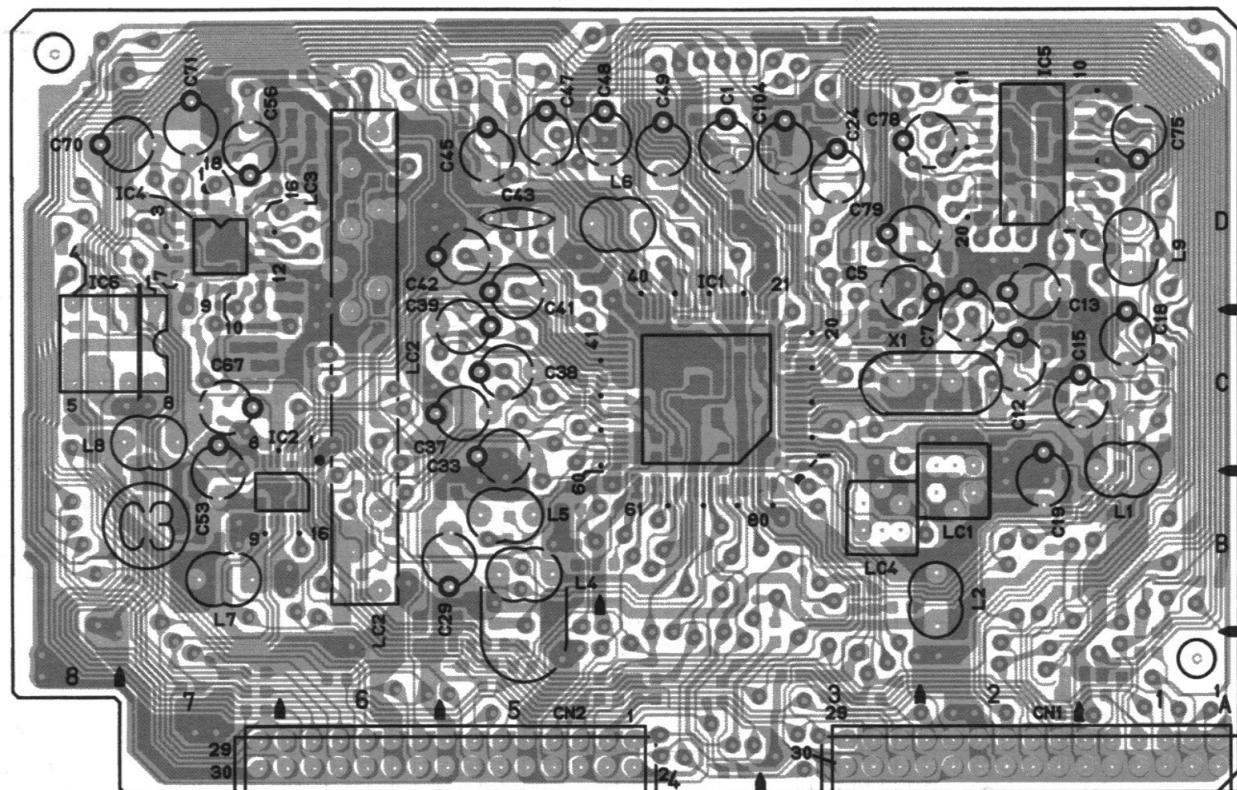
— Foil Side —



— IC PIN NUMBER LOCATION —



— Component Side —

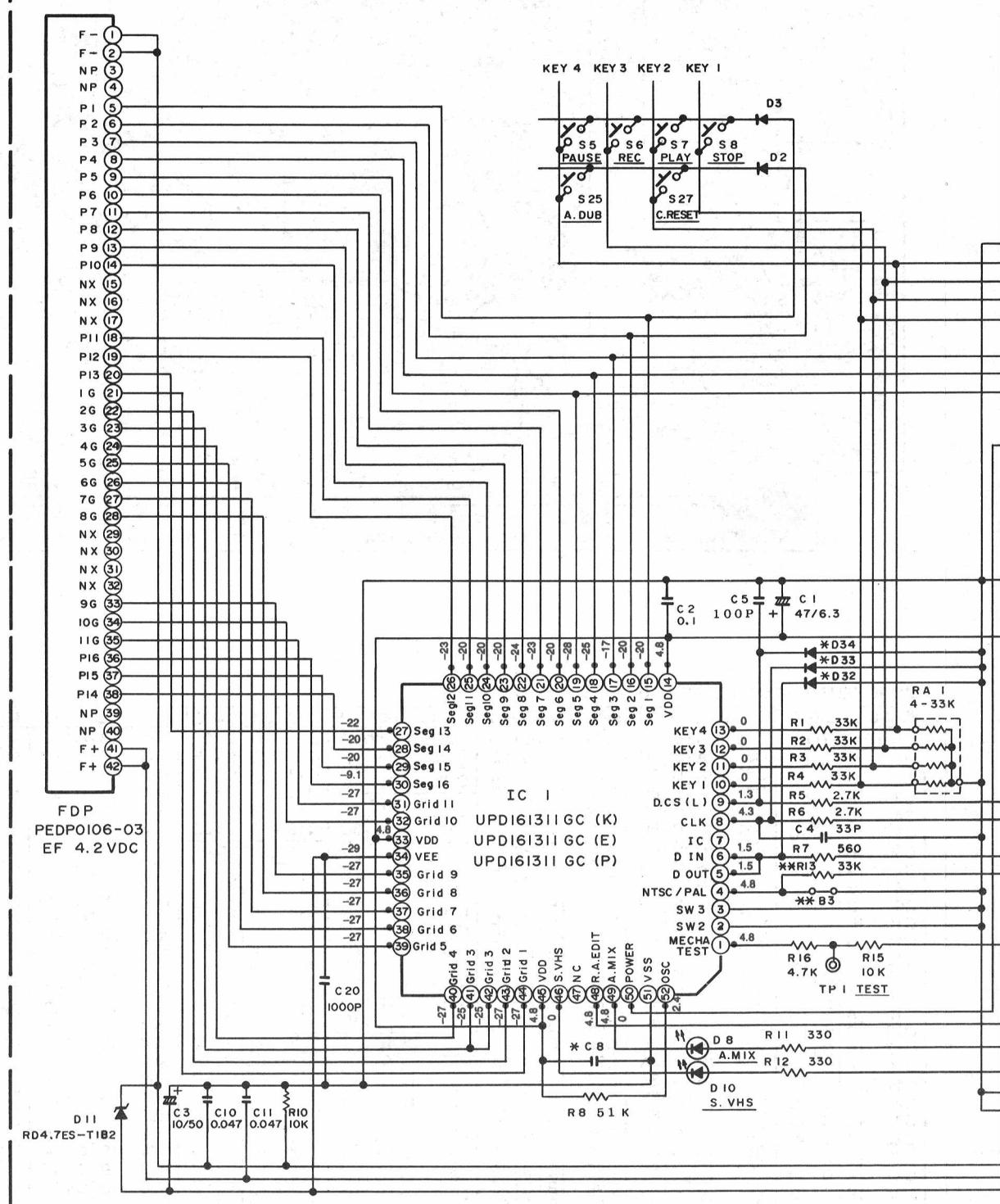


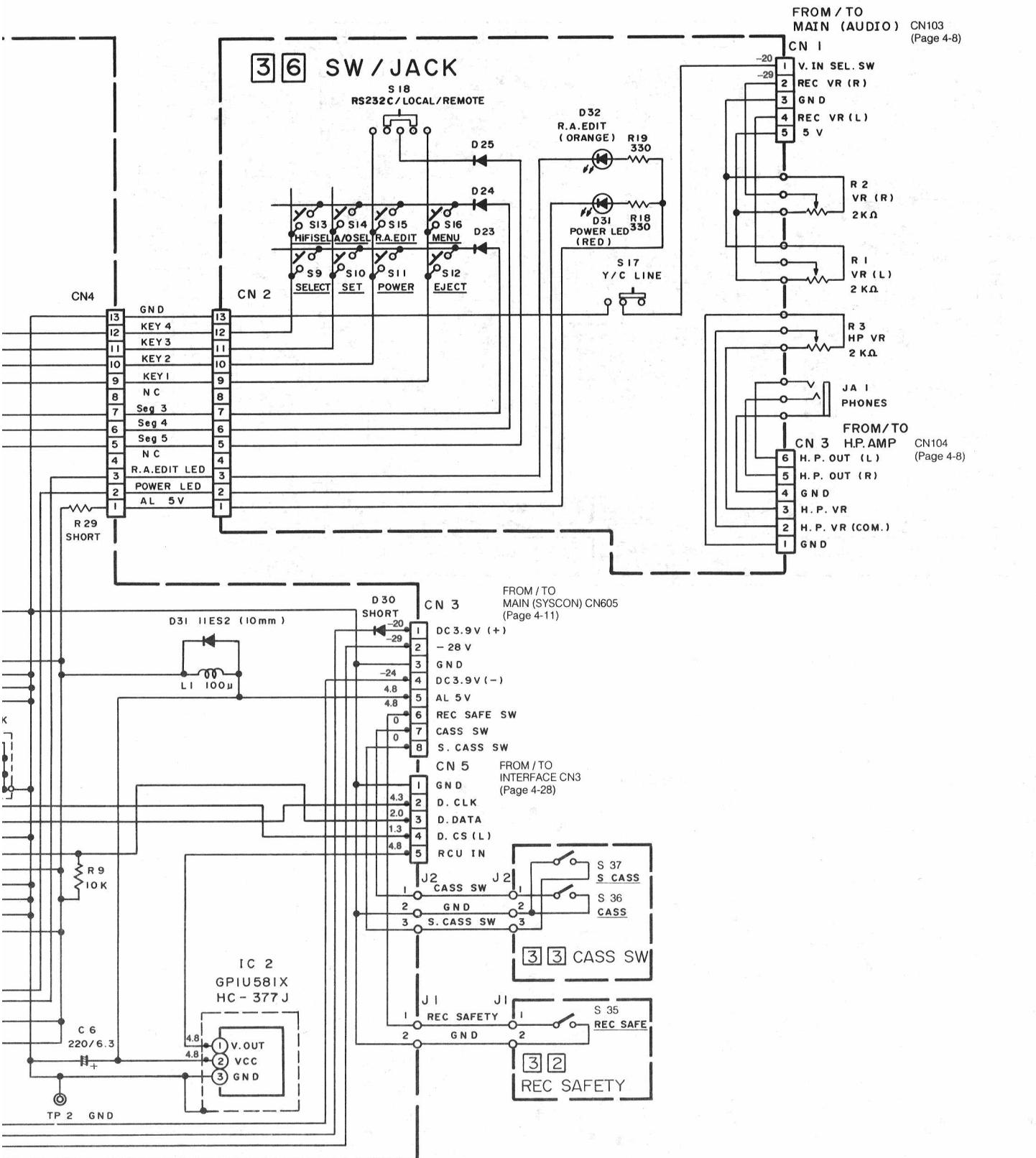
COMPONENT PARTS LOCATION GUIDE <VIDEO UNIT>

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR													
C1	A D 4D	C36	B C 4C	C73	B C 1C	Q11	B C 3E	R30	B C 7D	R68	B C 3E		
C2	B C 3D	C37	A D 5C	C74	B C 2E	Q12	B C 1B	R31	B C 7C	R69	B C 1A		
C3	B C 3D	C38	A D 5C	C75	A D 1E	Q13	B C 2B	R32	B C 7C	R70	B C 1D		
C4	B C 3E	C39	A D 6C	C76	B C 2E	Q14	B C 5B	R33	B C 6D	R71	B C 4D		
C5	A D 3D	C40	B C 5C	C77	B C 2E	Q15	B C 5A	R34	B C 7C	R72	B C 3B		
C6	B C 2D	C41	A D 5D	C78	A D 2E	Q16	B C 8E	R35	B C 7C	R73	B C 5E		
C7	A D 2C	C42	A D 5D	C79	A D 2D			R36	B C 7C	R74	B C 3D		
C8	B C 2C	C43	A D 5D	C80	B C 2D			R37	B C 7D	R75	B C 1A		
C9	B C 2C	C44	B C 4D	C81	B C 2D			R39	B C 2E	R76	B C 6B		
C10	B C 3C	C45	A D 5D	C82	B C 3D			R40	B C 1E	R77	B C 6D		
C11	B C 2C	C46	B C 4D	C83	B C 2C			R41	B C 2E	R79	B C 3D		
C12	B C 3C	C47	A D 5D	C84	B C 2D			R42	B C 2D	R80	B C 3D		
C13	A D 2C	C48	A D 4D	C85	B C 5A			R43	B C 3D	R81	B C 4C		
C14	B C 2C	C49	A D 4D	C86	B C 1A			R44	B C 2D	R82	B C 1D		
C15	A D 1C	C50	B C 8C	C87	B C 6A			R45	B C 2D	R83	B C 1C		
C16	B C 2C	C51	B C 7C	C88	B C 1B			R46	B C 5E	R85	B C 6D		
C17	B C 2C	C52	B C 7B	C89	B C 3B			R47	B C 6E	R86	B C 5E		
C18	B C 1C	C53	A D 7B	C90	B C 4C			R48	B C 4B	R87	B C 2C		
C19	A D 1C	C54	B C 3A	C91	B C 6A			R49	B C 4A				
C20	A D 2B	C55	B C 3A	C92	B C 4A			R50	B C 3A				
C21	B C 3C	C56	A D 7E	C93	B C 7A			R51	B C 3A				
C22	B C 3B	C57	B C 6E	C94	B C 7A			R52	B C 7A				
C23	B C 4C	C58	B C 7E	C95	B C 7A			R53	B C 7A				
C24	B C 4D	C59	B C 6E	C96	B C 7C			R54	B C 7A				
C25	A D 3D	C60	B C 6D	C97	B C 8C			R55	B C 5C				
C26	B C 4B	C61	B C 7D	C98	B C 7C			R56	B C 4C				
C27	B C 4C	C62	B C 7C	C99	B C 5E			R57	B C 6C				
C28	B C 4C	C63	B C 7D	C100	B C 1E			R58	B C 6C				
C29	A D 5B	C64	B C 6C	C101	B C 3C			R59	B C 8C				
C30	B C 4C	C65	B C 7C	C102	B C 4C			R60	B C 8D				
C31	B C 5B	C66	B C 7D	C104	A D 3D			R61	B C 8D				
C32	B C 5B	C67	A D 7C	C105	B C 3D			R62	B C 3B				
C33	A D 5C	C68	B C 7D	C106	B C 5B			R63	B C 4A				
C34	B C 5B	C69	B C 7E	C107	B C 5B			R64	B C 4C				
C35	B C 5C	C70	A D 7E	C108	B C 2A			R65	B C 4D				
		C72	B C 2D										
CONNECTOR													
DIODE													
RESISTOR													
IC													
COIL													
TRANSISTOR													
OTHERS													
K1	B C 5E												
LC1	A D 2C												
LC2	A D 6B												
LC3	A D 6E												
LC4	A D 3B												
PC0313	B C 7B												
X1	A D 3C												

4.16 DISPLAY, SW/JACK, REC SAFETY, CASSETTE SW SCHEMATIC DIAGRAM

2 | DISPLAY





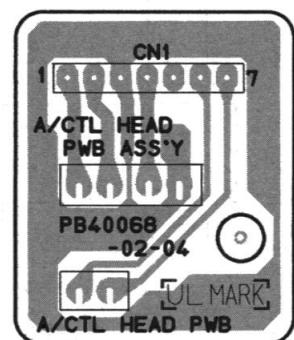
4.17 DISPLAY, SW/JACK, REC SAFETY, CASSETTE SW AND A/C HEAD CIRCUIT BOARDS

— REC SAFETY —

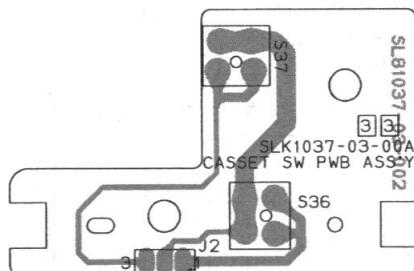


SL81037-002

— A/C HEAD —

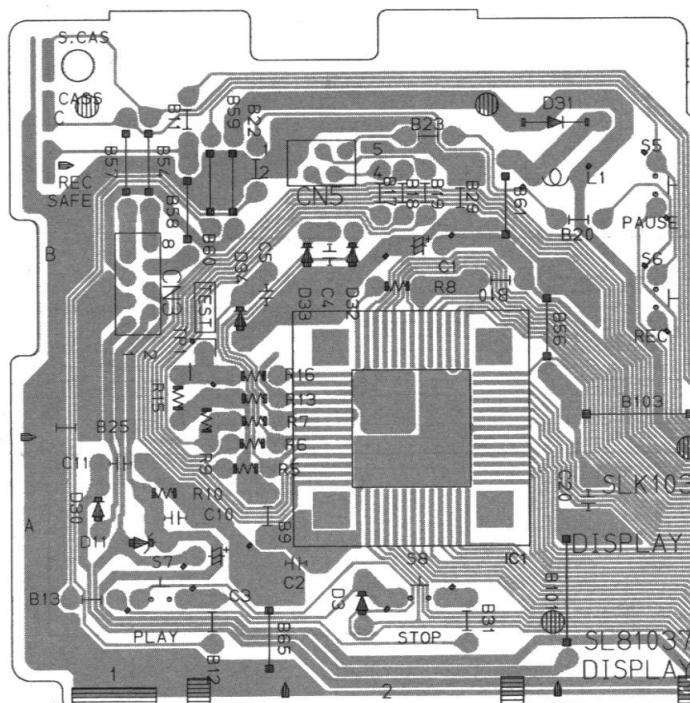


— CASSETTE SW —



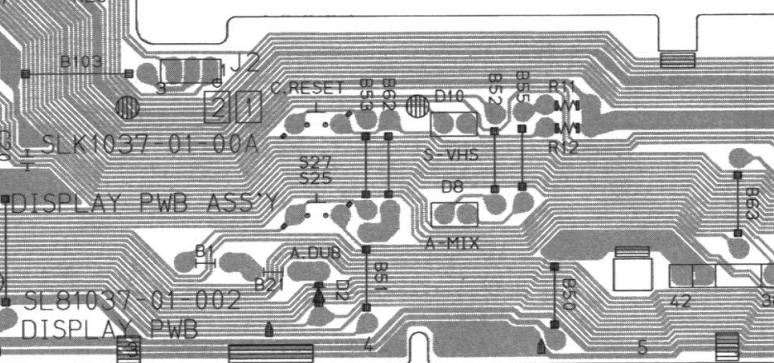
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— DISPLAY —

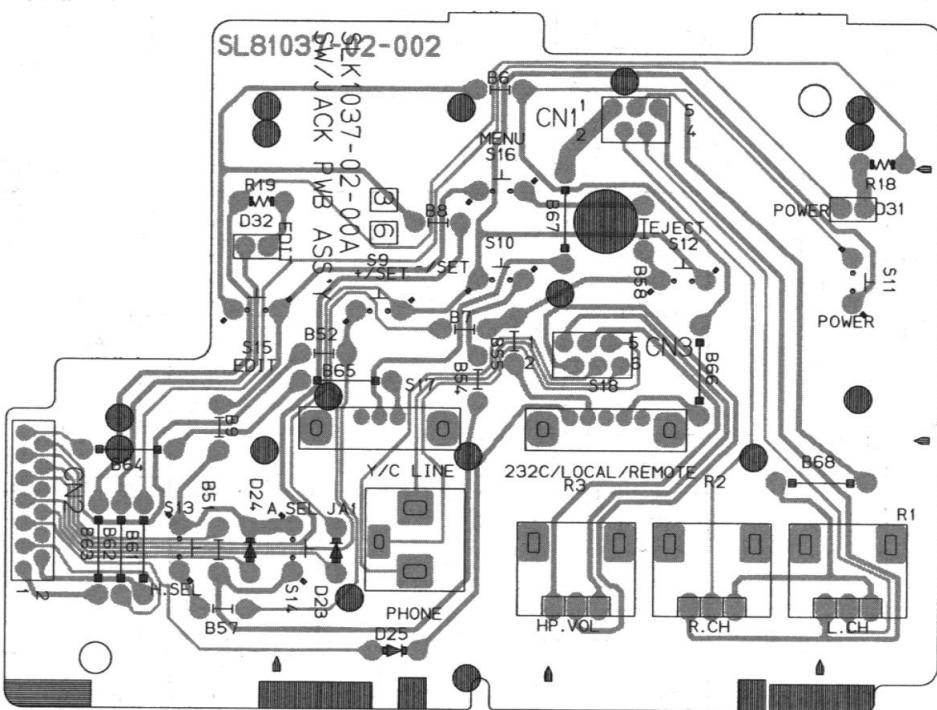


COMPONENT PARTS LOCATION GUIDE <for DI

REF.No.	LOCATION	REF.No.	LOCATION	REF.No.	LOCATION	REF.No.	LOCATION
IC1	2B	R1	7A	R15	1B	L	LOCATION
IC2	10A	R2	7A	R16	2B	T	LOCATION
D2	4A	R3	7A	R29	10A	T	LOCATION
D3	2A	R5	2A	C1	2B	C	LOCATION
D8	5A	R6	2B	C2	2A	C	LOCATION
D10	5A	R7	2B	C3	2A	C	LOCATION
D11	1A	R8	2B	C4	2B	F	LOCATION
D30	1A	R9	1B	C5	2B	J	LOCATION
D31	3C	R10	1A	C6	10A	LOCATION	
D32	2B	R11	5B	C10	1A		
D33	2B	R12	5A	C11	1B		
D34	2B	R13	2B	C20	3A		



— SW/JACK —

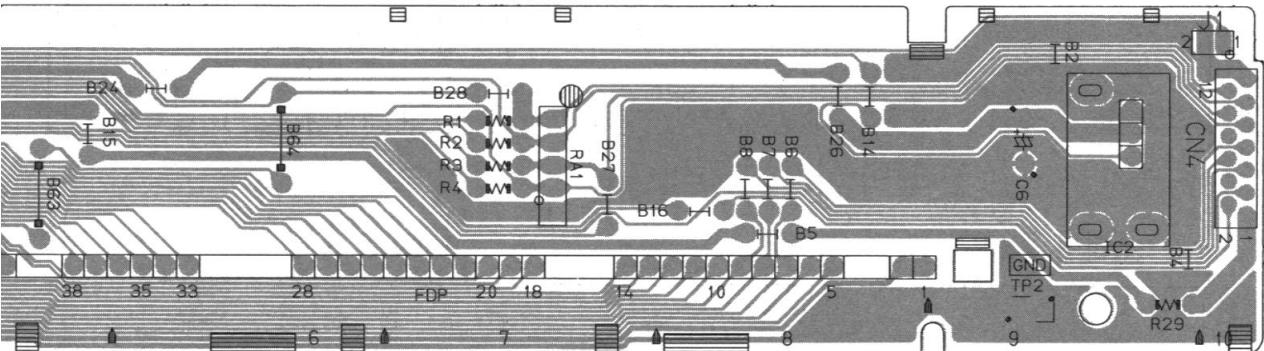


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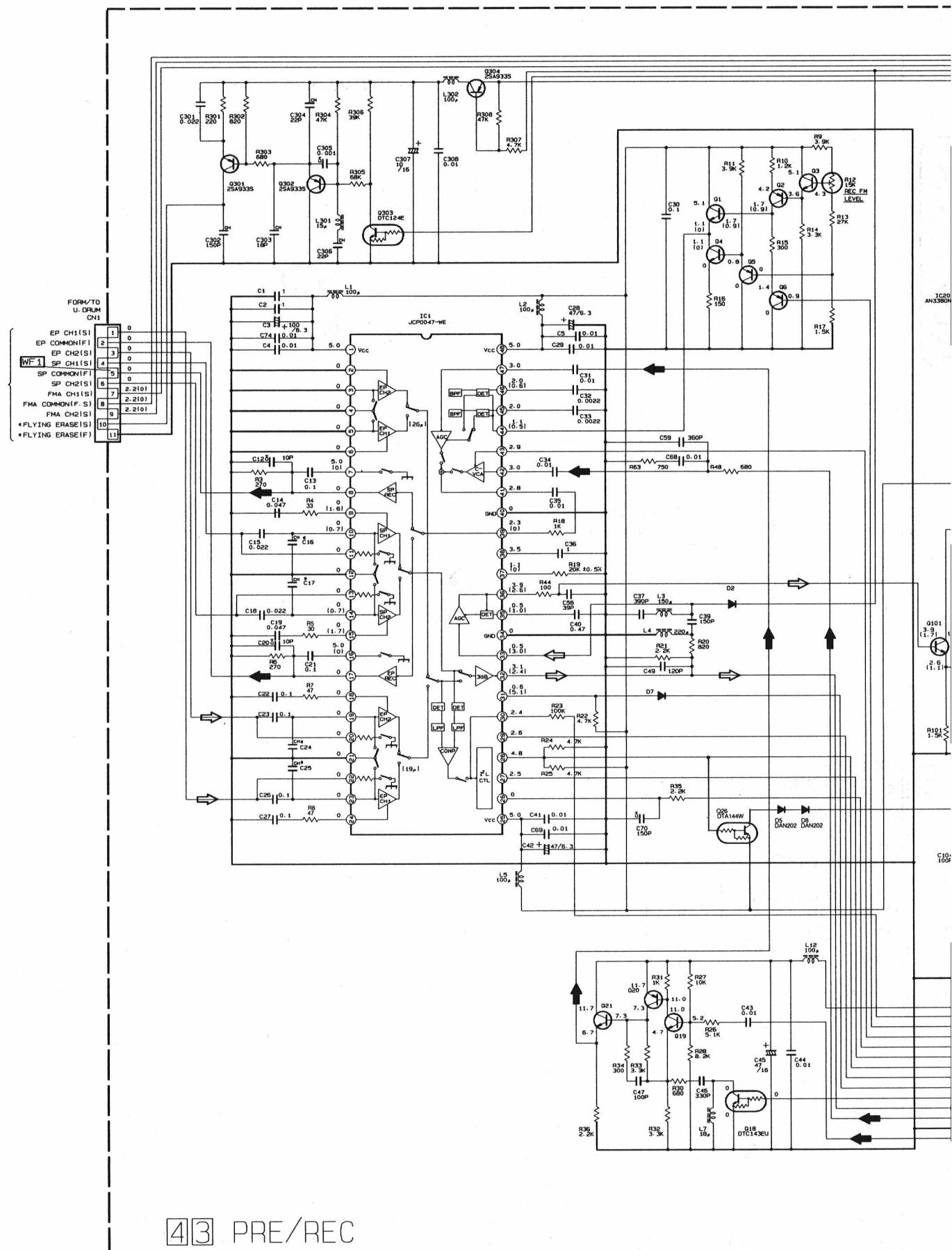
<for DISPLAY>

LOCATION	REF.No.	LOCATION	REF.No.	LOCATION
B	L1	3C	J2	4B
B				
0A	TP1	1B	RA1	8A
	TP2	10A		
B			S5	3C
A	CN2	10A	S6	3B
A	CN3	1B	S7	1A
B	CN5	2C	S8	2A
B			S25	4A
0A	FDP1	9A	S27	4A
A				
B	J1	10B		
A				

SL81037-002

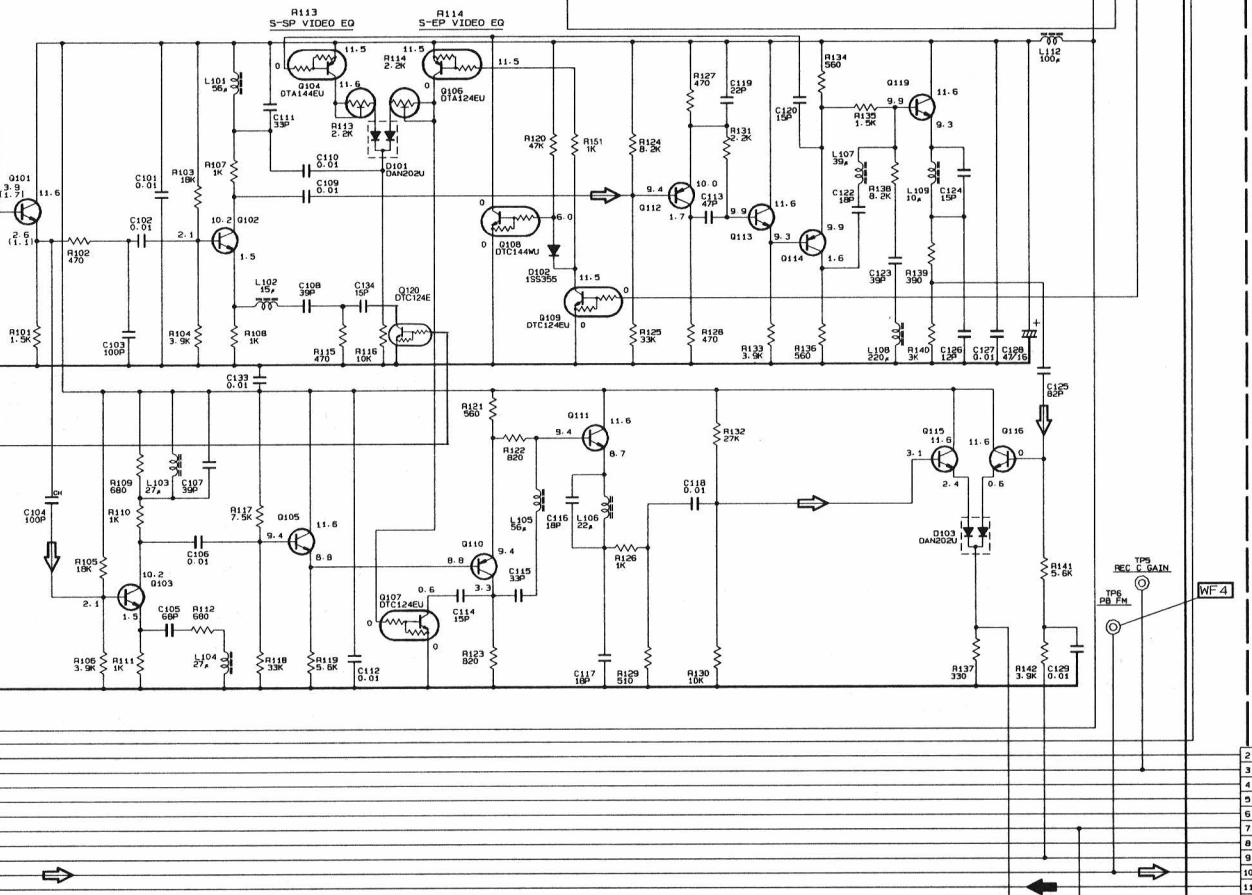
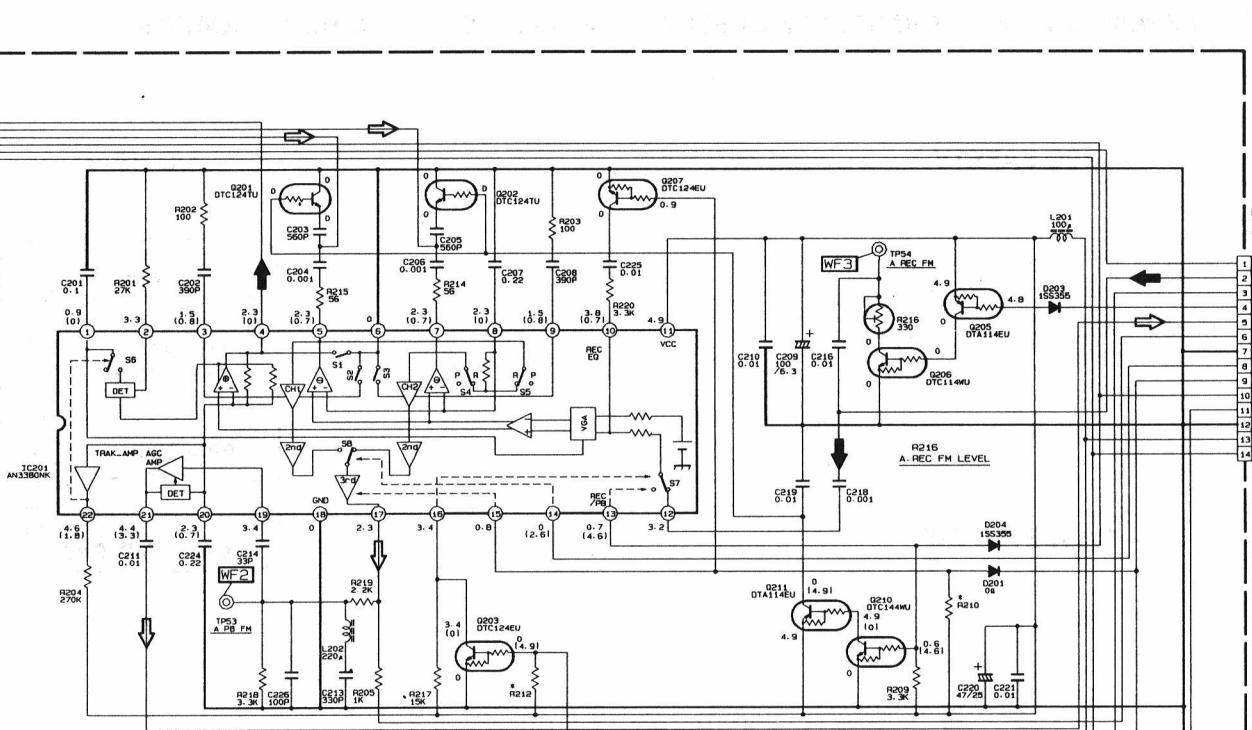


4.18 PRE/REC SCHEMATIC DIAGRAM



FROM/TO
VIDEO (Page 4-9)
CN2/4
CN2

- 1 *FLY-E(H)
- 2 A-REC FM
- 3 H-REC STILL
- 4 S-CASS(L)
- 5 A-FM
- 6 DA-FF
- 7 GND
- 8 SP(L1)
- 10 REC(L1)
- 11 HEAD SEL
- 12 GND
- 13 SMV
- 14 SW12V



FROM/TO
VIDEO (Page 4-9)
CN2/3
CN3

- 2 REC Y GAIN
- 3 D SYNC
- 4 C COL ROT
- 5 M/A/S
- 6 D FF
- 7 V REC STILL
- 8 DET S(H)
- 9 REC COL WF5
- 10 PB COL WF6
- 11 REC GND
- 12 GND
- 13 V REC FM
- 14 V PB FM

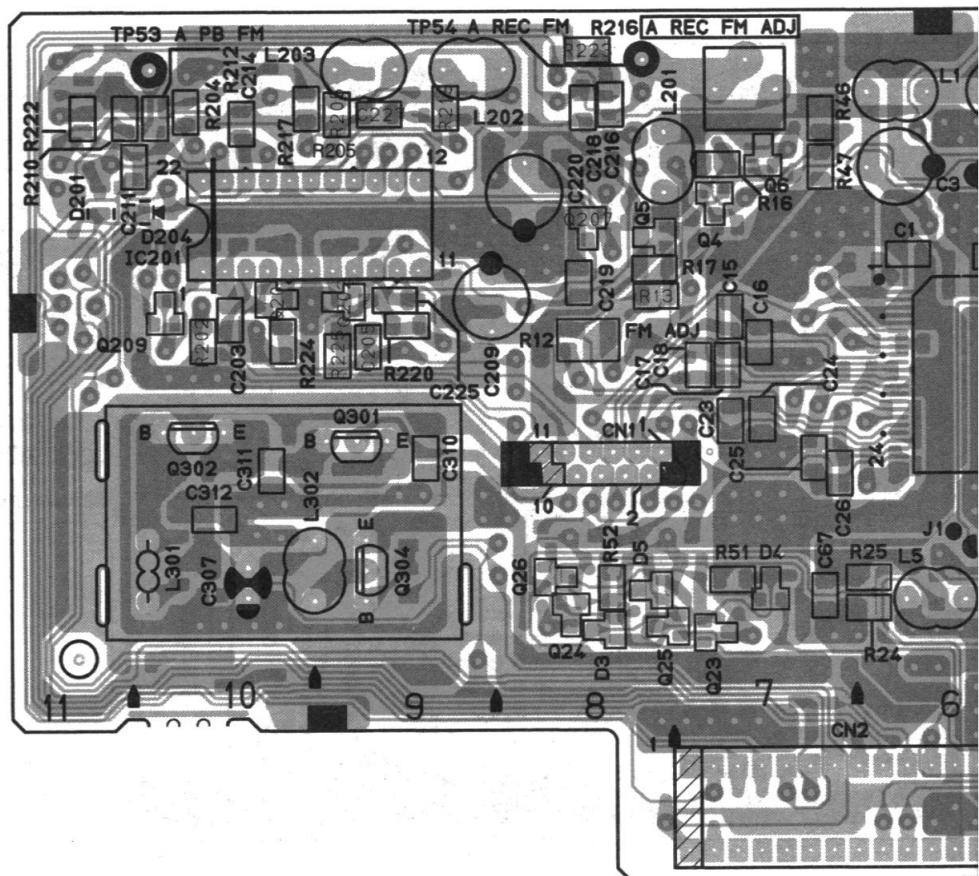
WF7

Note :

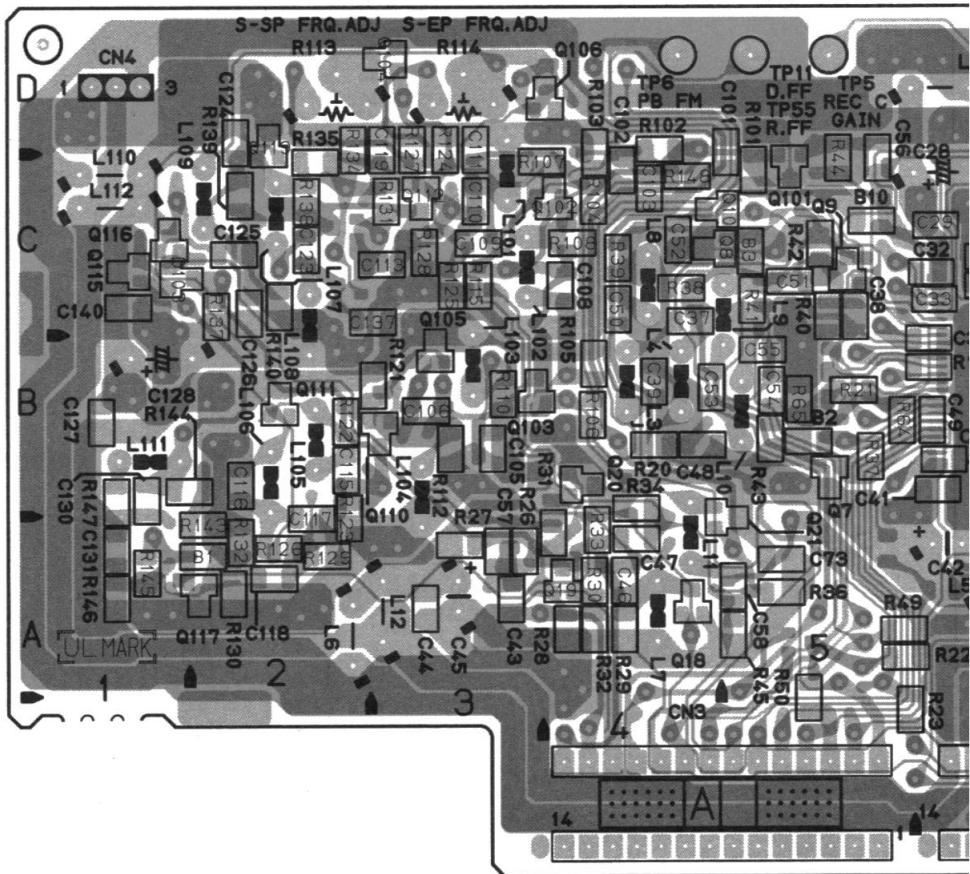
- All PNP transistor are 2SA1576(QRS)
- and all NPN transistor are 2SC4081(QRS).

4.19 PRE/REC CIRCUIT BOARD

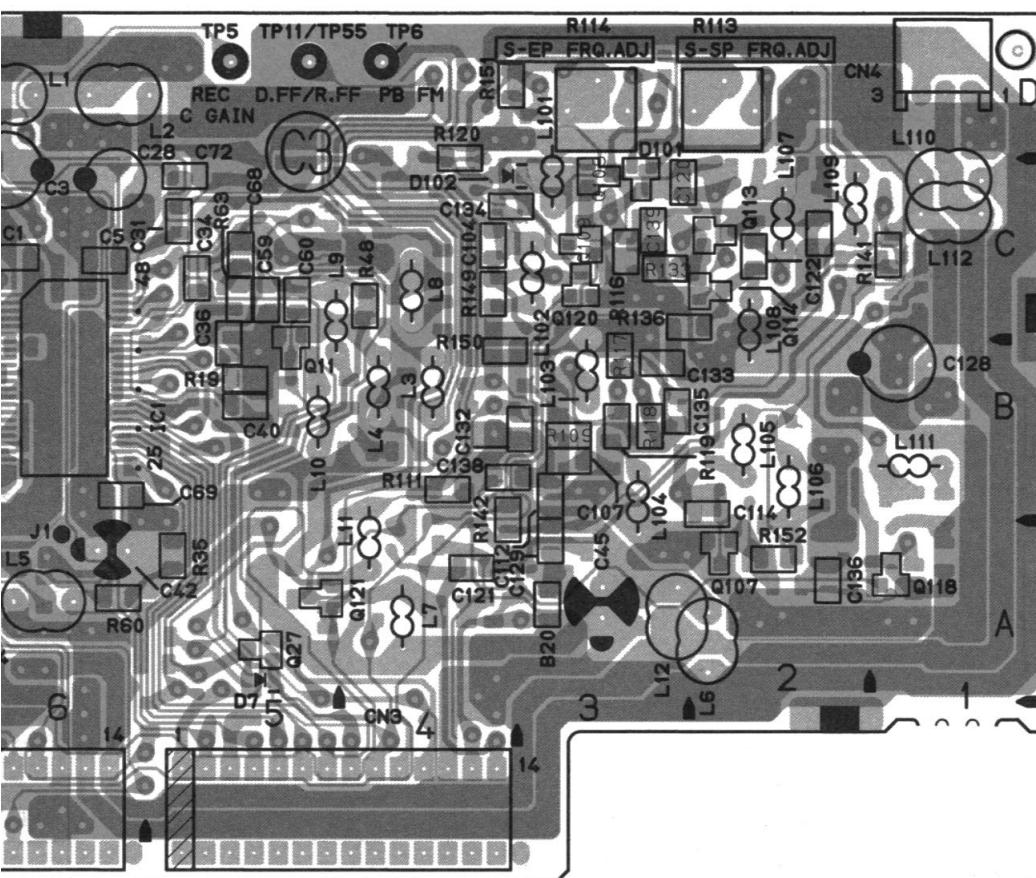
— Component



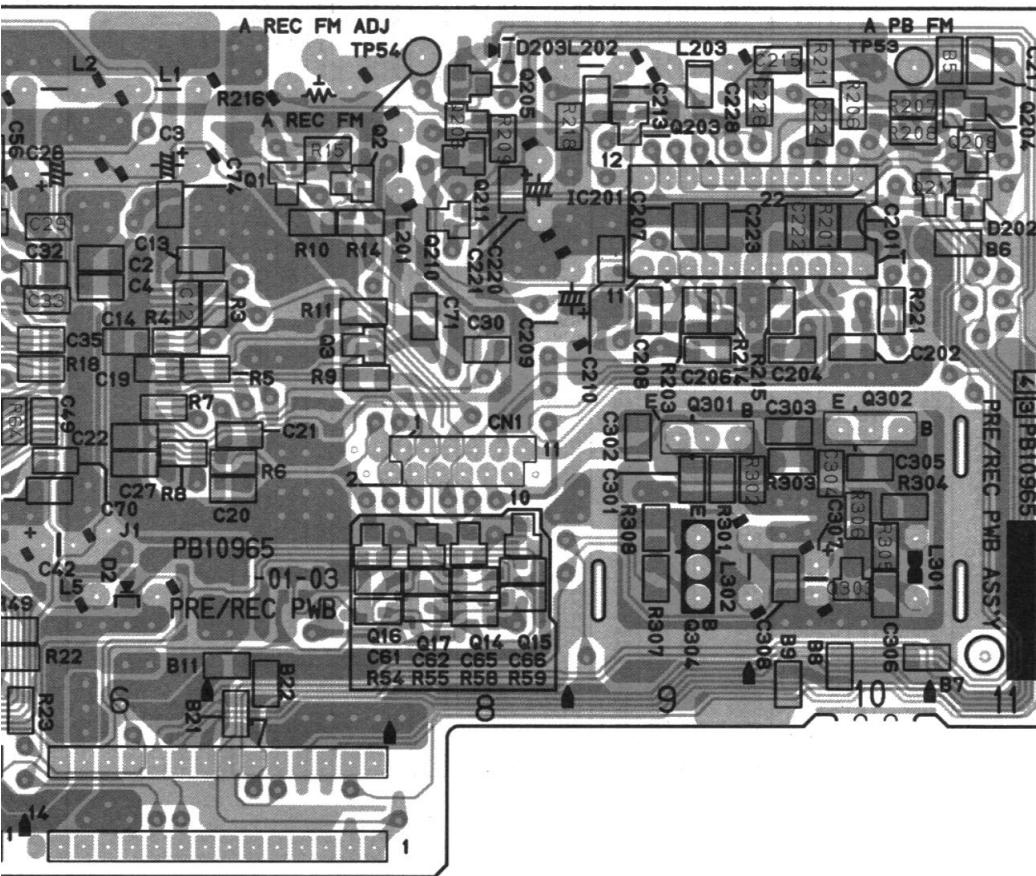
— Foil S



Component Side —

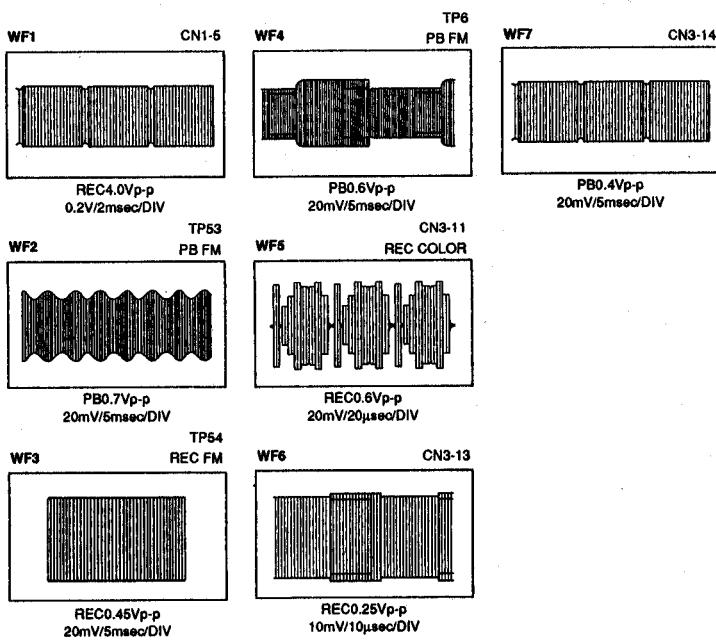


— Foil Side —



WAVEFORMS

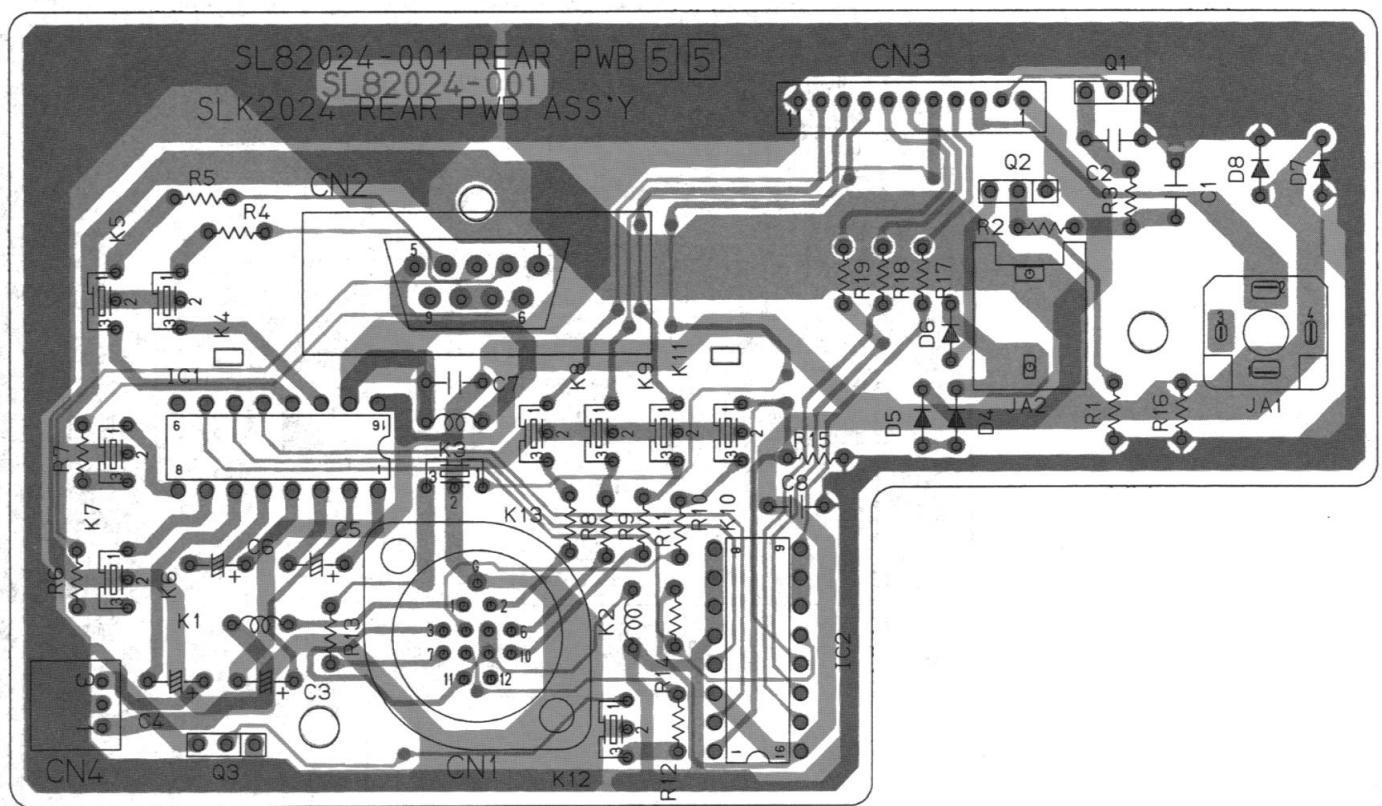
— PRE/REC —



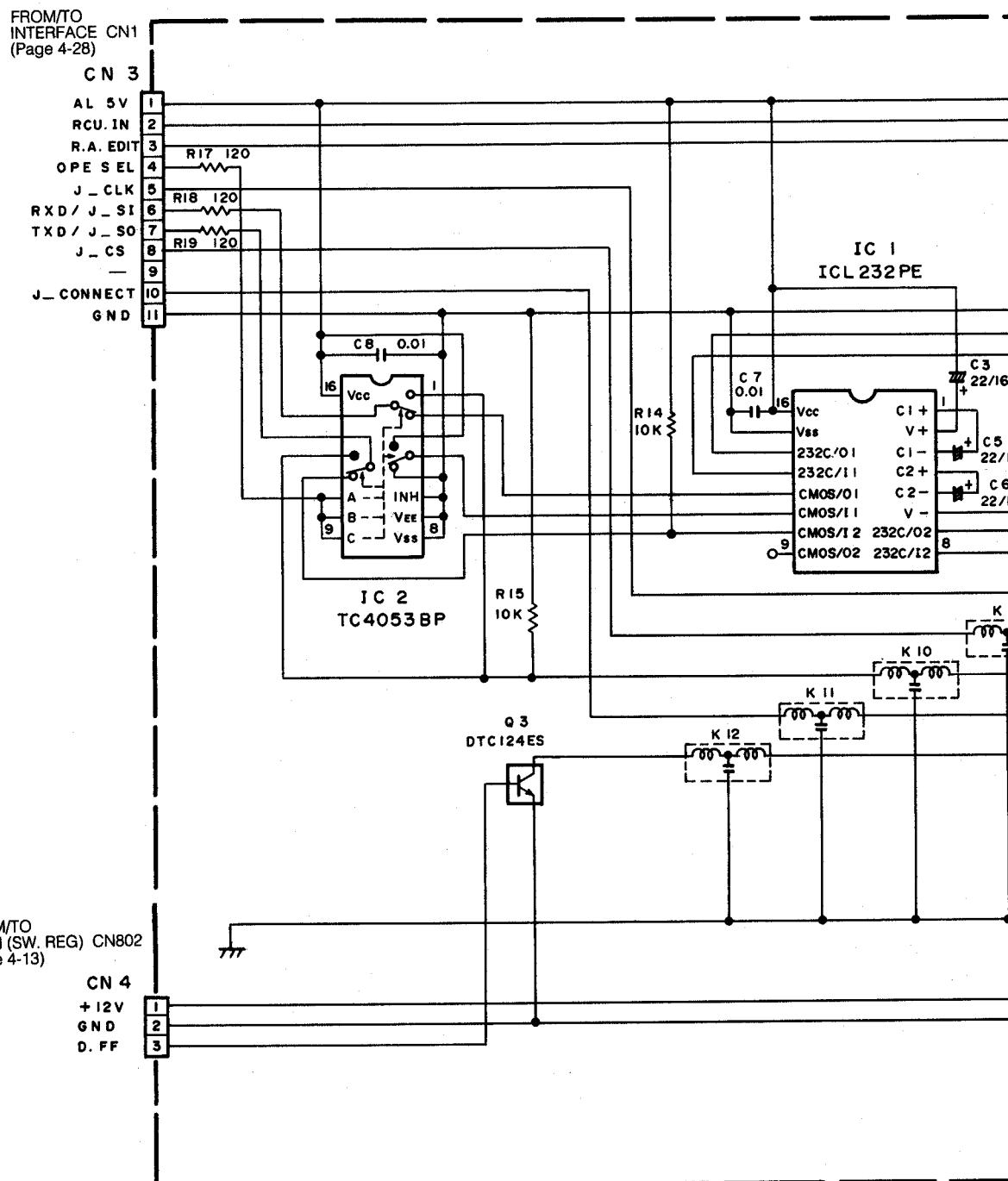
COMPONENT PARTS LOCATION GUIDE <PRE/REC>

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR													
C1	A C C 6C	C67	A C 7A	C213	B C 9D	L7	A D 4A	Q112	B C 3C	R35	A C 5A	R135	B C 2C
C2	B A C 6C	C68	A C 6B	C214	B C 10D	L8	A D 4B	Q113	A C 2C	R36	B C 5A	R136	B C 2C
C3	A B D 6C	C69	B C 5B	C215	B C 10D	L9	A D 5B	Q114	A C 1C	R37	B C 4C	R137	B C 2C
C4	A B C 6C	C70	B C 8C	C216	A C 8D	L10	A D 4A	Q115	B C 1C	R38	B C 5C	R138	B C 2C
C5	A B C 6C	C71	B B C C 5A	C217	B A C 11D	L11	A D 3A	Q116	B C 2A	R39	B C 5C	R139	B C 2C
C12	B B C C 6C	C73	B B C C 4D	C218	A A C 8C	L12	A D 3C	Q117	B C 1A	R40	B C 5C	R140	B C 2C
C13	B B C C 6C	C74	B B C C 6C	C220	A A D 8C	L13	A D 3C	Q118	B C 2D	R41	B C 5C	R141	B C 2C
C14	B B C C 6B	C101	B B C C 4C	C221	B B C 8C	L14	A D 3A	Q119	B C 3C	R42	B C 5C	R142	B C 2C
C15	A A C C 7C	C102	B B C C 4C	C222	B B C 10C	L15	A D 2B	Q120	A A 5A	R43	B C 5B	R143	B C 2B
C16	A A C C 7B	C103	B B C C 4C	C223	B B C 9C	L16	A D 2B	Q121	A A 10C	R44	B C 5C	R144	B C 2B
C17	A A C C 7B	C104	B B C C 4C	C224	B B C 10D	L17	A D 2C	Q201	A A 9C	R45	B C 5A	R145	B C 1A
C18	A A C C 7B	C105	B B C C 3B	C225	B A C 9C	L18	A D 2C	Q202	B B C C 7D	R46	B C 7C	R146	B C 1A
C19	B B C C 6B	C106	B B C C 3B	C226	B A C 10D	L19	A D 2B	Q203	B B C C 4C	R47	B C 4C	R147	B C 1B
C20	B B B B C C 6B	C107	B B C C 4C	C227	B A C 9D	L20	A D 2B	Q204	B B C C 5A	R48	B C 4C	R148	B C 4C
C21	B B B B C C 6B	C108	B B C C 3C	C228	B B C 9D	L21	A D 2C	Q205	B B C C 5A	R49	B C 4B	R149	B C 4B
C22	B B B B C C 6B	C109	B B C C 3C	C301	B B C 9B	L22	A D 1C	Q206	B B C C 5A	R50	B C 5A	R150	A A 3D
C23	B B B B C C 6B	C110	B B C C 3C	C302	B B C 9B	L23	A A D 1C	Q207	A A 1C	R51	B C 5A	R151	A A 3D
C24	A A C C 7B	C111	B B C C 3D	C303	B B C 10B	L24	A A D 1C	Q208	A A 1D	R52	B C 6A	R152	B B 2A
C25	A A C C 7B	C112	B B C C 3D	C304	B B C 10B	L25	A A D 9D	Q209	A B C C 8A	R53	B C 8A	R201	B B 10C
C26	A A C C 7B	C113	B B C C 3C	C305	B B C 10B	L26	A A D 9D	Q210	A B C C 8A	R54	B C 8A	R202	B B 10B
C27	A A C C 7B	C114	B B C C 2B	C306	B B C 10A	L27	A A D 9D	Q211	B B C C 8A	R55	B C 8A	R203	B B 9C
C28	A A D D 6C	C115	B B C C 2B	C307	B B C 10A	L28	A A D 10A	Q212	B B C C 8A	R56	B C 8A	R204	B B 10D
C29	A A D D 6C	C116	B B C C 2A	C308	B B C 10A	L29	A A D 10A	Q301	A D 9B	R57	B C 6A	R205	B B 9D
C30	B B C C 8B	C117	B B C C 2A	C309	B B C 9B	L30	A A D 10A	Q302	A D 10B	R58	B C 8B	R206	B B 10D
C31	B B C C 8B	C118	B B C C 2D	C311	A A C 9B	L31	A A C 10B	Q303	A D 9A	R59	B C 8B	R207	B B 10D
C32	B B C C 8C	C119	B B C C 2D	C312	A A C 10B	L32	A A C 10B	Q304	A D 9A	R60	B C 8B	R208	B B 10D
C33	B B C C 6C	C120	B B C C 2D								R61	R209	R8D
C34	B B C C 6C	C121	B B C C 2D								R62	R210	R11D
C35	A B C C 5C	C122	A A C C 4A								R63	R211	R10D
C36	A B C C 5C	C123	A A C C 4A								R64	R212	R10D
C37	A B C C 4C	C124	B B C C 2D								R65	R213	R9C
C38	B B C C 5C	C125	B B C C 2D								R66	R214	R10C
C39	B B C C 4B	C126	B B C C 2D								R67	R215	R10C
C40	B B C C 4B	C127	B B C C 1B								R68	R216	R7D
C41	A B A C C 5B	C128	A A C C 3A								R69	R217	R10D
C42	A B A C C 5B	C129	A A C C 3A								R70	R218	R9D
C43	A B A C C 5A	C130	B B C C 1B								R71	R219	R9D
C44	A B A C C 5A	C131	B B C C 1B								R72	R220	R9C
C45	A B A C C 5A	C132	A A C C 3B								R73	R221	A A 10C
C46	A B A C C 5A	C133	A A C C 3B								R74	R222	A A 11D
C47	B B B C C 4A	C134	A A C C 3C								R75	R223	A A 8D
C48	B B B C C 4A	C135	A A C C 2A								R76	R224	A A 10B
C49	B B B C C 4B	C136	A A C C 2A								R77	R225	A A 9B
C50	B B B C C 4B	C137	B B C C 3C								R78	R301	R9B
C51	B B B C C 4C	C138	B B C C 3C								R79	R302	R10B
C52	B B B C C 4C	C139	B B C C 3C								R80	R303	R10B
C53	B B B C C 4C	C140	B B C C 2C								R81	R304	R10A
C54	B B B C C 5B	C201	B B C C 2C								R82	R305	R10A
C55	B B B C C 5B	C202	B B C C 10C								R83	R306	R10B
C56	B B B C C 5C	C203	B B C C 10C								R84	R307	R9A
C57	B B B C C 5A	C204	B B C C 10B								R85	R308	R9A
C58	B B B C C 5A	C205	B B C C 9B										
C59	A A C C 5C	L1	A D 6D										
C60	A A C C 5C	L2	A D 6D										
C61	B B C C 7A	L3	A D 4B										
C62	B B C C 8A	L4	A D 4B										
C63	B B C C 8A	L5	A D 6A										
C64	B B C C 8A	L6	A D 2A										
C65	B B C C 8A	L7	A D 2A										
C66	B B C C 8A	L8	A C 10C										
IC													
Q101	A C 6B	IC1	A C 6B	Q102	B B C C 5A	R21	B B C C 5B	R22	B B C C 5A	R23	B B C C 5A	R24	B B C C 5D
Q103	A C 10C	IC201	A D 10C	Q104	B B C C 3B	R25	B B C C 3B	R26	B B C C 3B	R27	B B C C 3B	R28	B B C C 5D
Q105	B B C C 9B			Q106	B B C C 3D	R29	B B C C 3D	R30	B B C C 3D	R31	B B C C 3D	R32	B B C C 5D
Q107	B B C C 9C			Q108	B B C C 2A	R33	B B C C 2A	R34	B B C C 2A	R35	B B C C 2A	R36	B B C C 5D
Q109	B B C C 9C			Q110	B B C C 3B	R37	B B C C 3B	R38	B B C C 3B	R39	B B C C 3B	R40	B B C C 5D
Q111	B B C C 10C			Q112	B B C C 2B	R41	B B C C 2B	R42	B B C C 2B	R43	B B C C 2B	R44	B B C C 5D
COIL													
Q104	B B C C 3B			Q105	B B C C 3D	R45	B B C C 3D	R46	B B C C 3D	R47	B B C C 3D	R48	B B C C 5D
Q106	B B C C 3D			Q107	B B C C 2A	R49	B B C C 2A	R50	B B C C 2A	R51	B B C C 2A	R52	B B C C 5D
Q108	B B C C 2A			Q109	B B C C 3C	R53	B B C C 3C	R54	B B C C 3C	R55	B B C C 3C	R56	B B C C 5D
Q110	B B C C 3C			Q111	B B C C 2B	R57	B B C C 2B	R58	B B C C 2B	R59	B B C C 2B	R60	B B C C 5D
TEST POINT													
TP5	A D 5D	TP6	A D 5D	TP11	A D 5D	TP12	A D 5D	TP13	A D 5D	TP14	A D 5D	TP15	A D 5D
TP53	A D 10D	TP54	A D 10D	TP55	A D 10D	TP56	A D 10D	TP57	A D 10D	TP58	A D 10D	TP59	A D 10D

4.20 REAR CIRCUIT BOARD



4.21 REAR SCHEMATIC DIAGRAM



NOTES : UNLESS OTHERWISE SPECIFIED,

ALL RESISTANCE VALUES ARE IN OHMS.

ALL CAPACITANCE VALUES ARE IN μ F.

ELECTROLYTIC.

CERAMIC

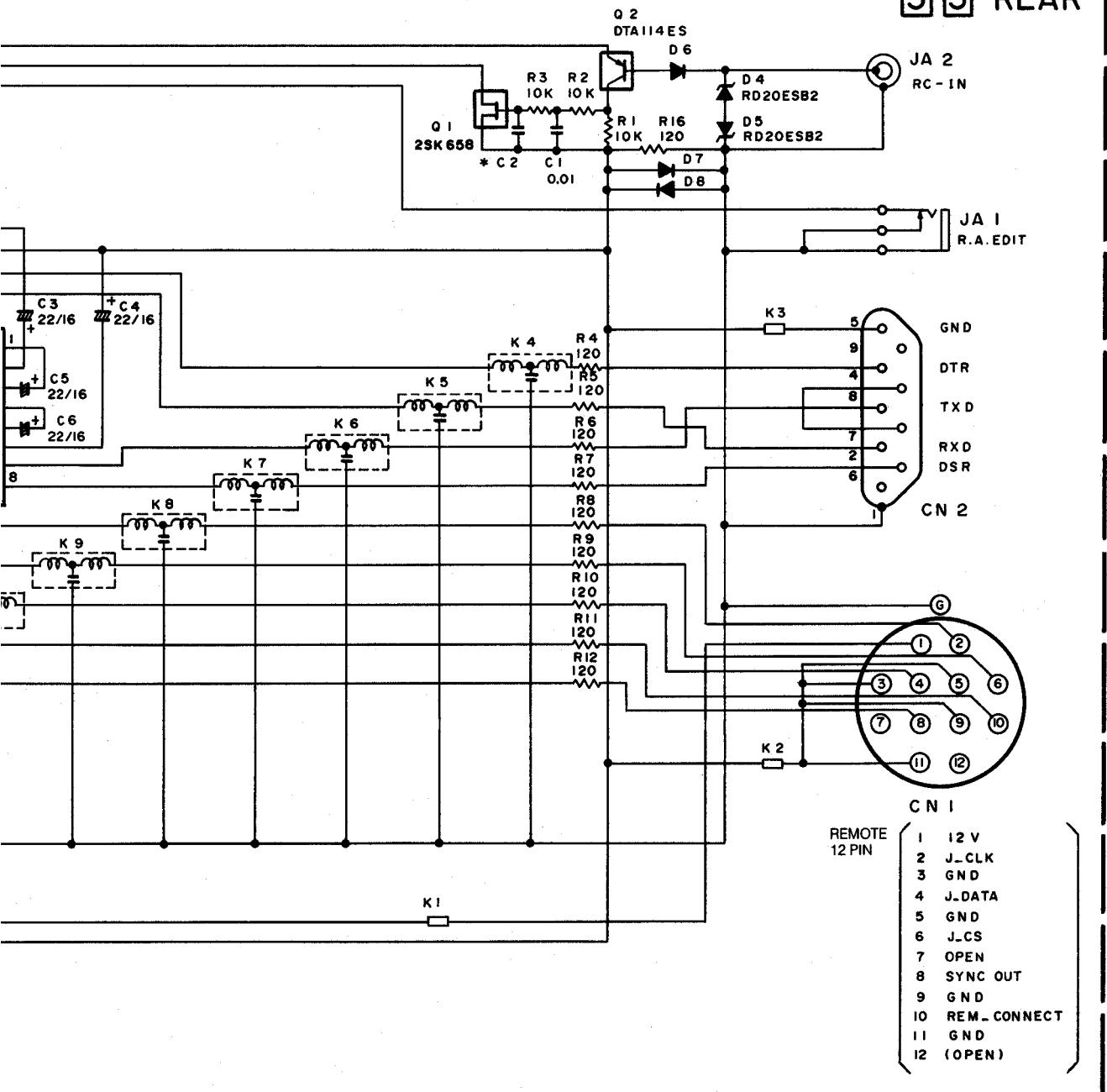
ALL DIODES ARE ISS133

K4 - K13 ARE PGZ02241-221

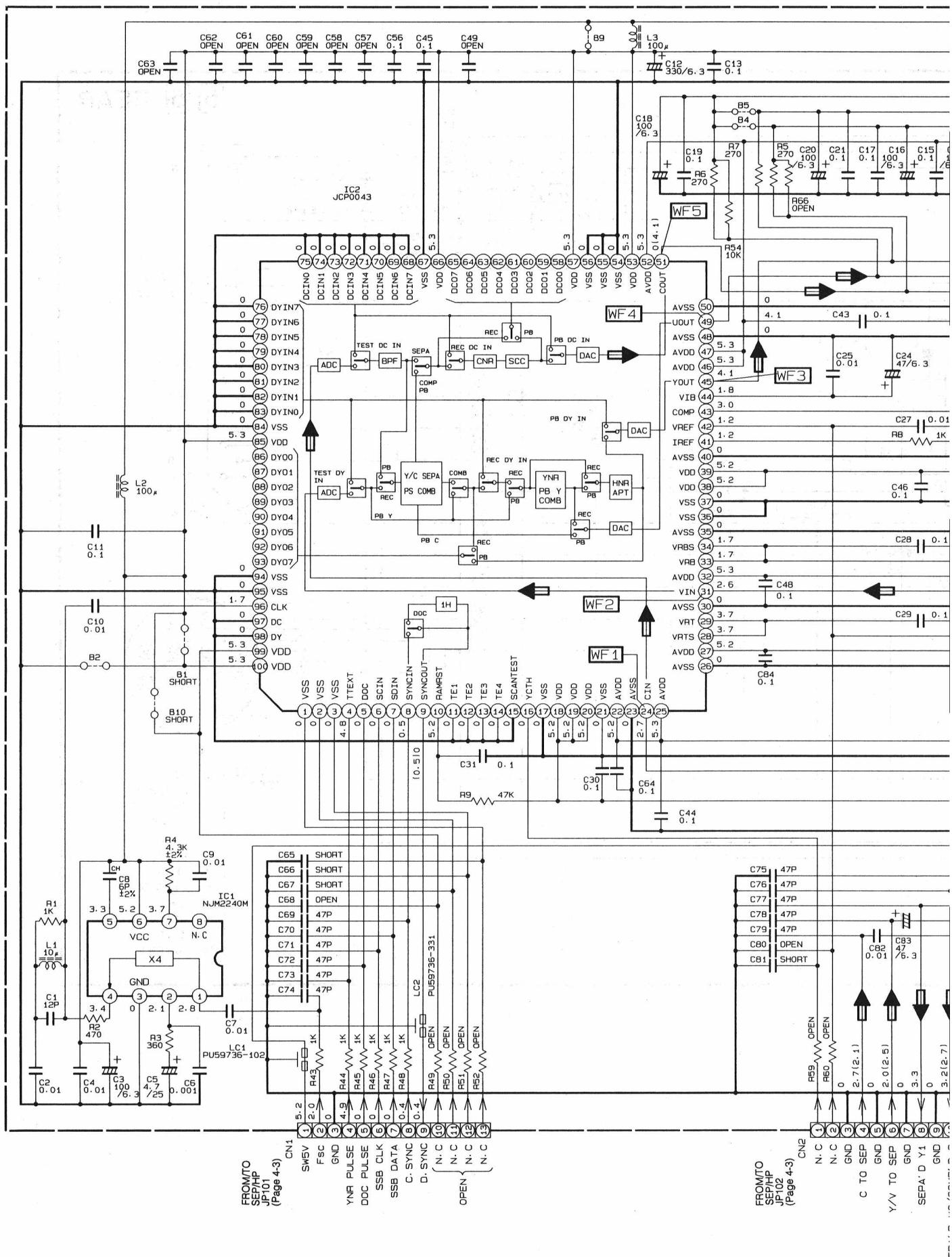
K1 - K3 ARE PGZ00354

* MARK ELEMENTS ARE NOT MOUNTED.

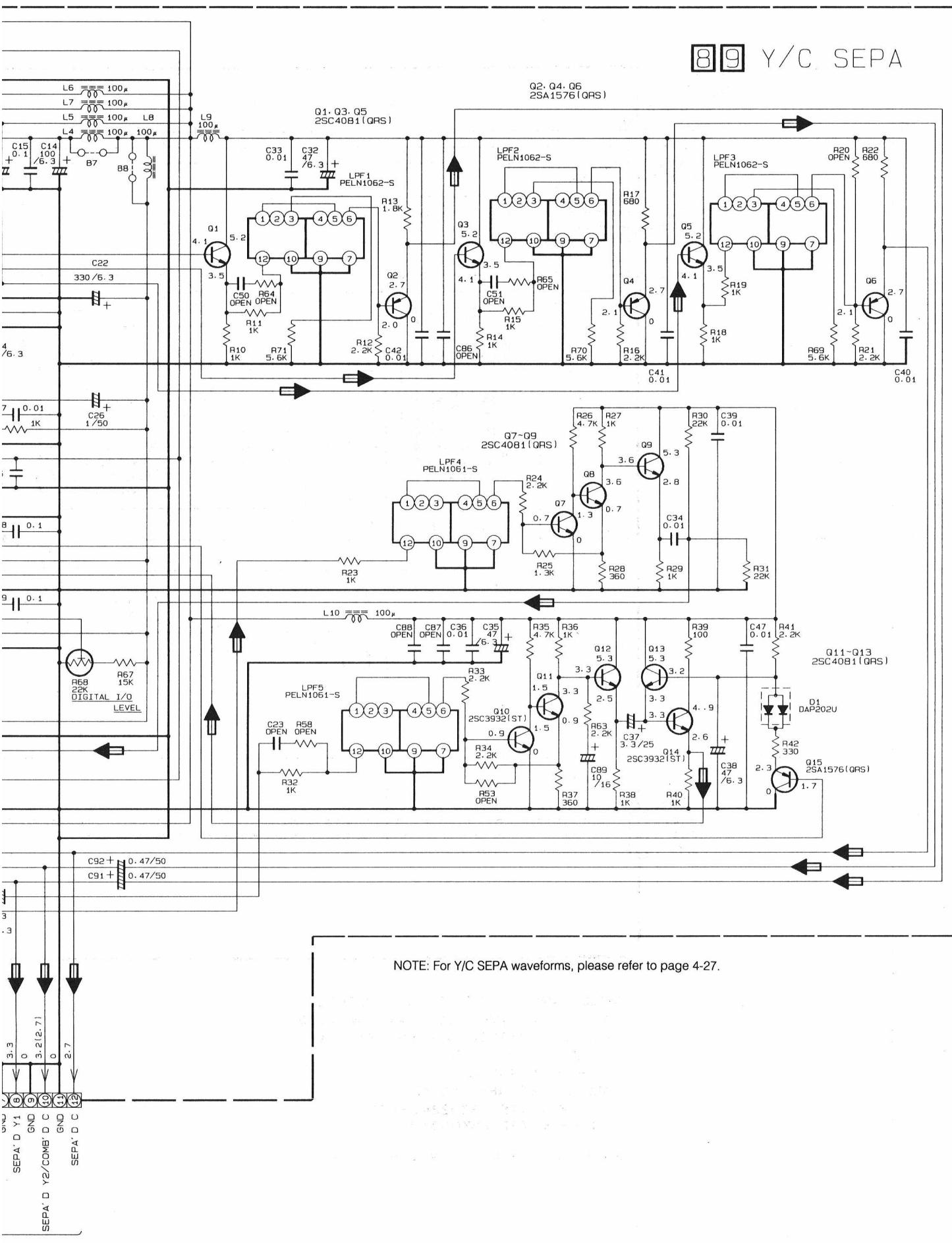
5 5 REAR



4.22 Y/C SEPARATOR SCHEMATIC DIAGRAM

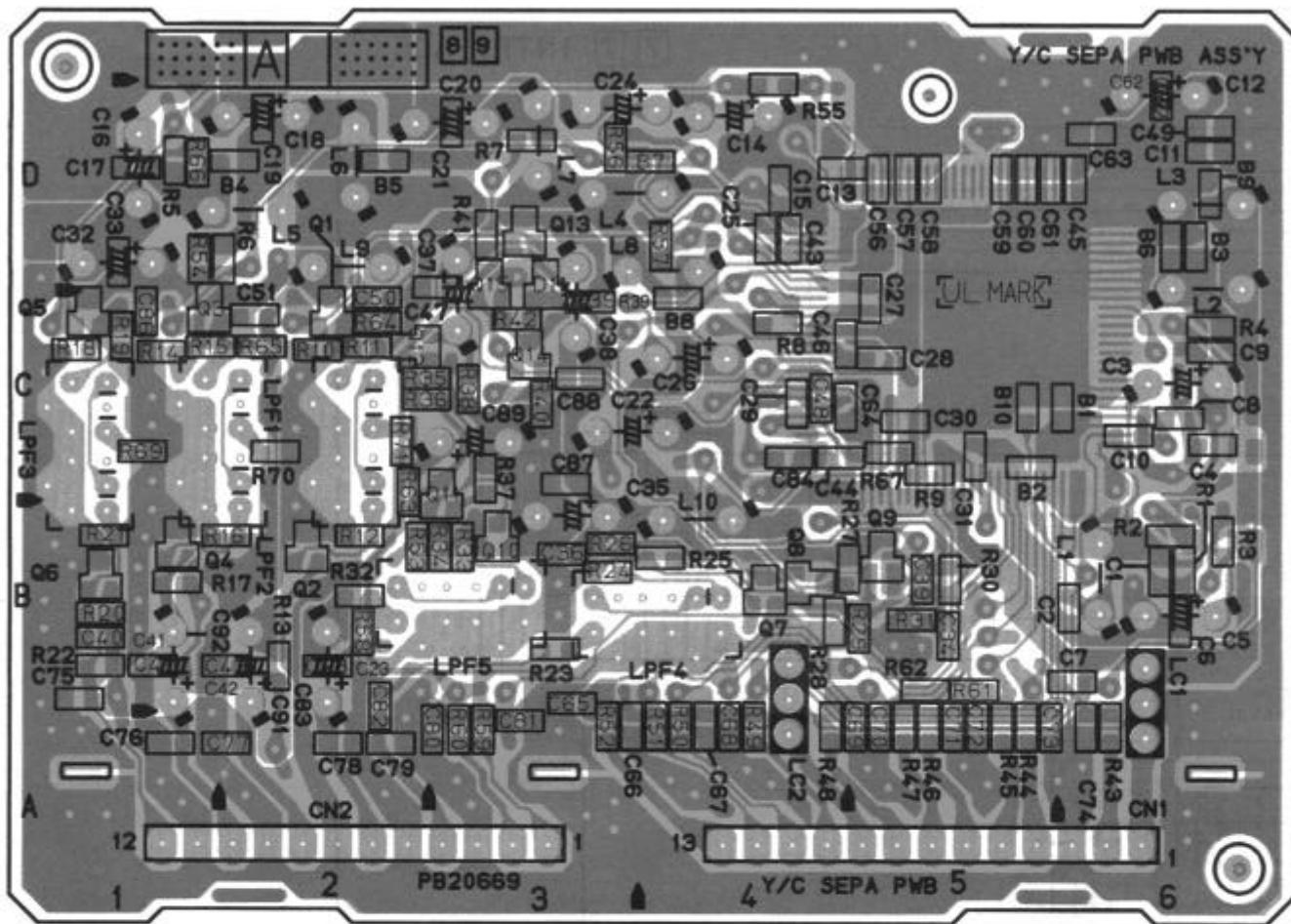


89 Y/C SEPA



4.23 Y/C SEPARATOR CIRCUIT BOARD

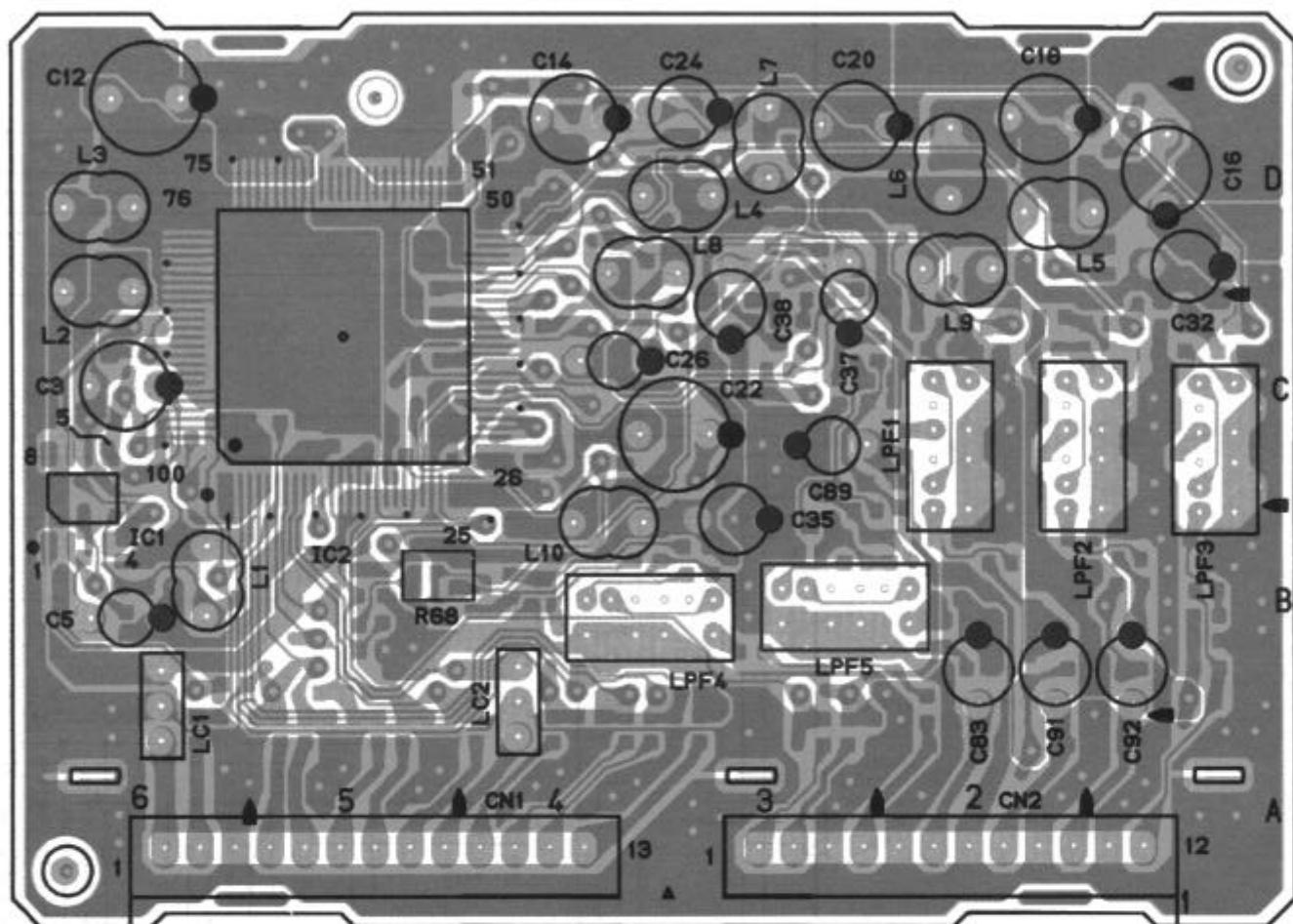
— Foll Side —



COMPONENT PARTS LOCATION GUIDE <Y/C SEPA>

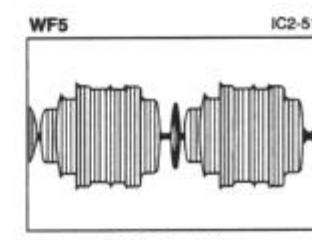
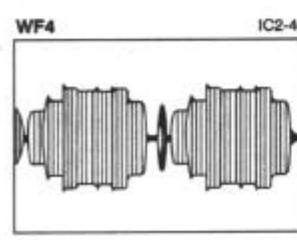
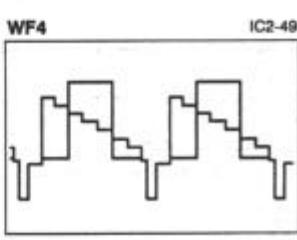
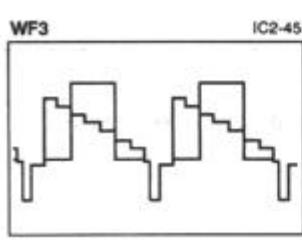
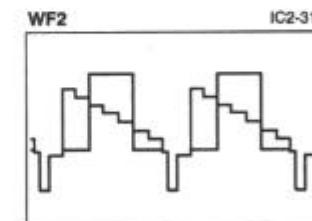
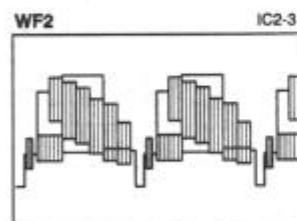
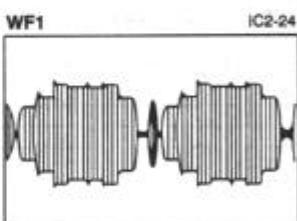
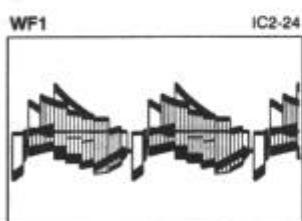
REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR									
C1	B C 6B	C43	B C 4D	CN1	A D 4A	R1	B C 6B	R43	B C 6A
C2	B C 6B	C44	B C 4C	CN2	A D 1A	R2	B C 6B	R44	B C 5A
C3	A D 6C	C45	B C 4C	D1	B C 3D	R3	B C 6B	R45	B C 5A
C4	B C 6C	C46	B C 4C	IC1	A C 6C	R4	B C 6C	R46	B C 5A
C5	A D 6B	C47	B C 3D	IC2	A C 5C	R5	B C 1D	R47	B C 4A
C6	B C 6B	C48	B C 4C	COIL		R6	B B C 2D	R48	B C 4A
C7	B C 6B	C49	B C 6D	L1	A D 6B	R7	B B C 3D	R49	B C 4A
C8	B C 6C	C50	B C 2C	L2	A D 6D	R8	B B C 4C	R50	B C 4A
C9	B C 6C	C51	B C 2C	L3	A D 6D	R9	B B C 5C	R51	B C 3A
C10	B C 6C	C52	B C 5D	L4	A D 3D	R10	B B C 2C	R52	B C 2B
C11	B C 6D	C53	B C 5D	L5	A D 10	R11	B B C 2C	R53	B C 1D
C12	A D 6D	C54	B C 5D	L6	A D 2D	R12	B B C 2B	R54	B C 4D
C13	B C 4D	C55	B C 5D	L7	A D 3D	R13	B B C 2B	R55	B B C 3D
C14	A D 4D	C56	B C 5D	L8	A D 3D	R14	B B C 1C	R56	B B C 4D
C15	B C 4D	C57	B C 5D	L9	A D 2D	R15	B B C 1C	R57	B B C 2B
C16	A D 1D	C58	B C 5D	L10	A D 4B	R16	B B C 2B	R58	B B C 3A
C17	B C 1D	C59	B C 5D			R17	B B C 1B	R59	B B C 3A
C18	A D 2D	C60	B C 5D			R18	B B C 1C	R60	B B C 3A
C19	B C 2D	C61	B C 6D			R19	B B C 1C	R61	B B C 5B
C20	A D 3D	C62	B C 6D			R20	B B C 1B	R62	B B C 5B
C21	B C 3D	C63	B C 6D			R21	B B C 1B	R63	B B C 2C
C22	A D 4C	C64	B C 4C			R22	B B C 1B	R64	B B C 2C
C23	B C 2B	C65	B C 4C			R23	B B C 3B	R65	B B C 2C
C24	A D 4D	C66	B C 4C			R24	B B C 3B	R66	B B C 1D
C25	B C 4D	C67	B C 4C			R25	B B C 4B	R67	B B C 5C
C26	A D 4C	C68	B C 4C			R26	B B C 3B	R68	A C 5B
C27	B C 5C	C69	B C 4A			R27	B B C 5B	R69	B C 1C
C28	B C 5C	C70	B C 4A			R28	B B C 4B	R70	B C 2C
C29	B C 4C	C71	B C 5A					R71	B C 2C
C30	B C 5C	C72	B C 5A						
C31	B C 5C	C73	B C 5A						
C32	A D 1D	C74	B C 5A						
C33	B C 1D	C75	B C 1A						
C34	B C 5B	C76	B C 1A						
C35	A D 3B	C77	B C 2A						
C36	B C 3B	C78	B C 2A						
C37	A D 3D	C79	B C 2A						
C38	A D 3D	C80	B C 3A						
C39	B C 5B	C81	B C 3A						
C40	B C 1B	C82	B C 2B						
C41	B C 1B	C83	A D 2B						
C42	B C 2B	C84	B C 4C						
		C85	B C 1C						
		C86	B C 2B						
		C87	B C 3C						
		C88	B C 3C						
		C89	A D 3C						
		C90	A D 2B						
		C91	A D 1B						
		C92	A D 1B						
CONNECTOR									
RESISTOR									
DIODE									
IC									
COIL									
TRANSISTOR									
OTHERS									

— Component Side —

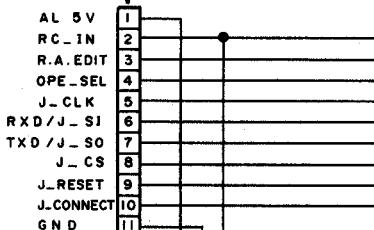
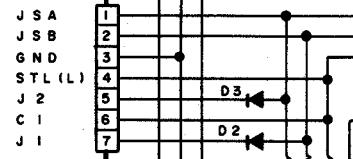
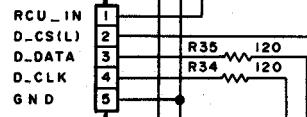


WAVEFORMS

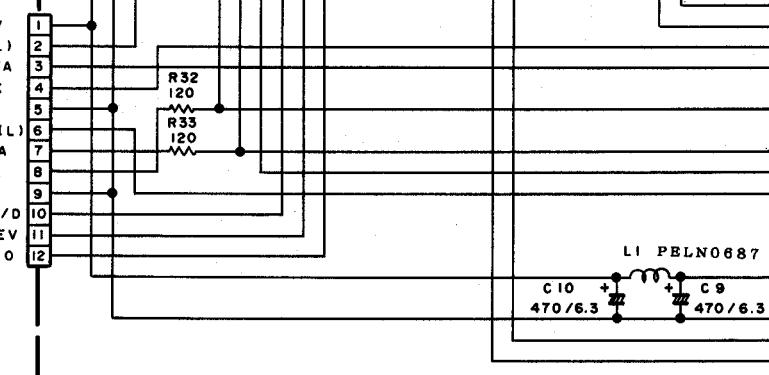
— Y/C SEPA —



4.24 INTERFACE SCHEMATIC DIAGRAM

FROM / TO REAR
CN3 (Page 4-25) CN 1(Page 4-3) FROM SHT/JOG
CN 2FROM / TO DISPLAY
CN5 (Page 4-20) CN 3

IC 2 BR93LC56A IC 3 BR93LC56A

FROM / TO MAIN
CN604 (Page 4-11)CN 4
AL 5V
STB(L)
S.DATA
S.CLK
GND
O_CS(L)
O.DATA
O.CLK
GND
CTL_C/D
CAP REV
DUTY - I/O

C10 + 470/6.3 C9 + 470/6.3

NOTES : UNLESS OTHERWISE SPECIFIED.

ALL RESISTANCE VALUES ARE IN OHMS. ALL DIODES ARE ISS133.

ALL INDUCTANCE VALUES ARE μ H.ALL CAPACITANCE VALUES ARE IN μ F.

- ELECTROLYTIC
- CERAMIC
- MYLER
- NON POLAR

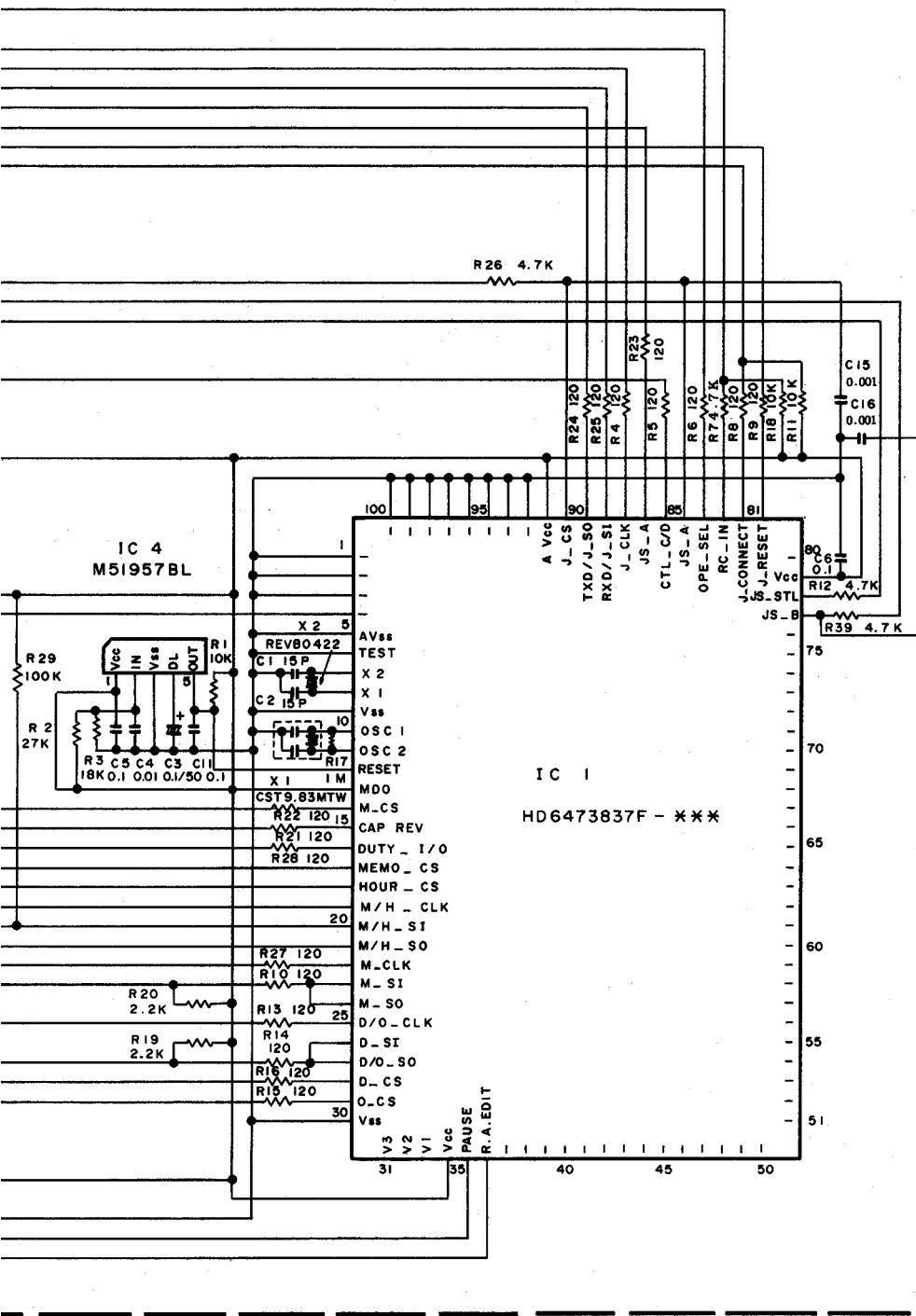
A

B

C

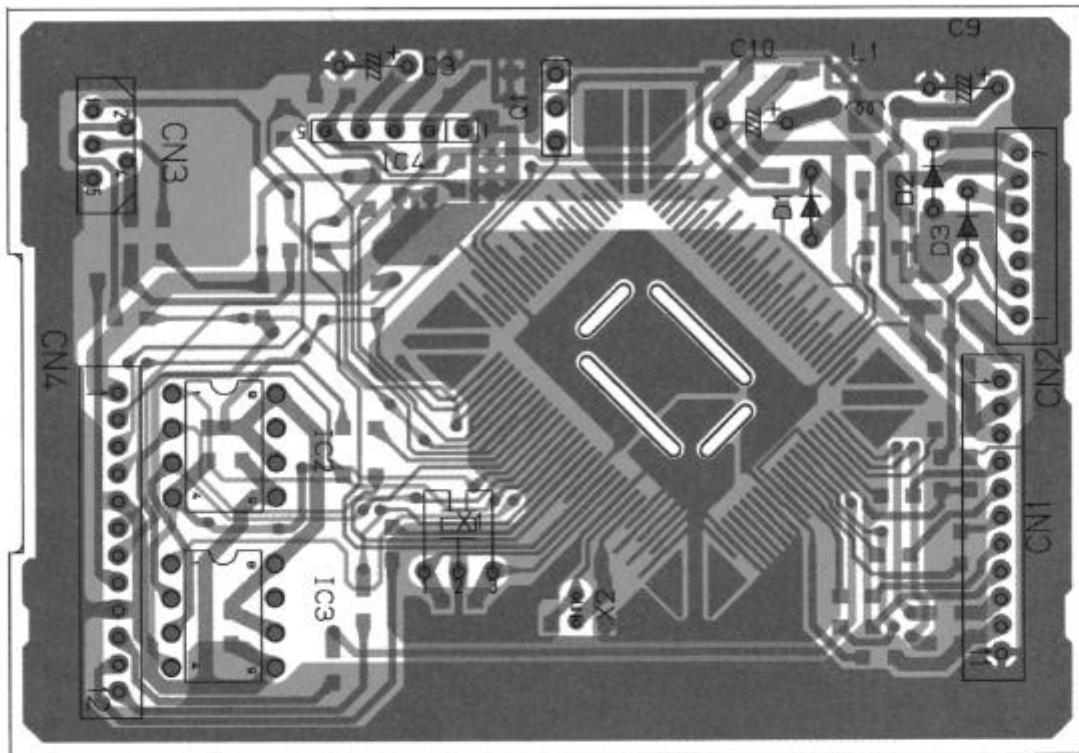
D

7 7 INTERFACE

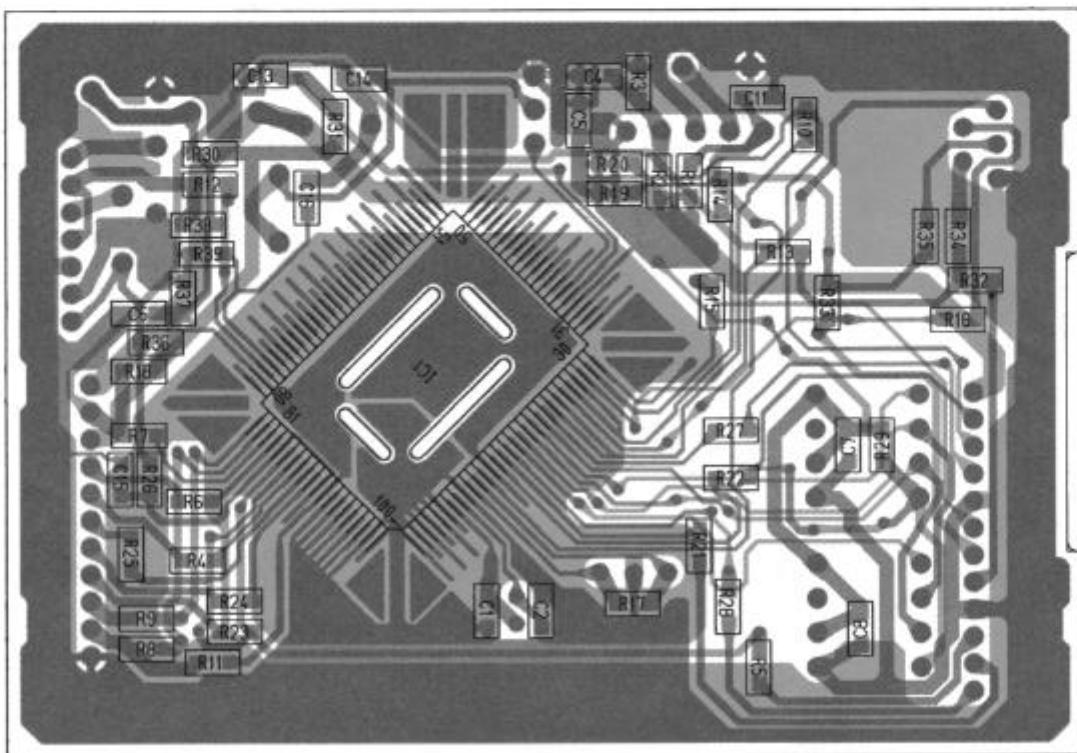


4.25 INTERFACE CIRCUIT BOARD

— Component Side —



— Foil Side —

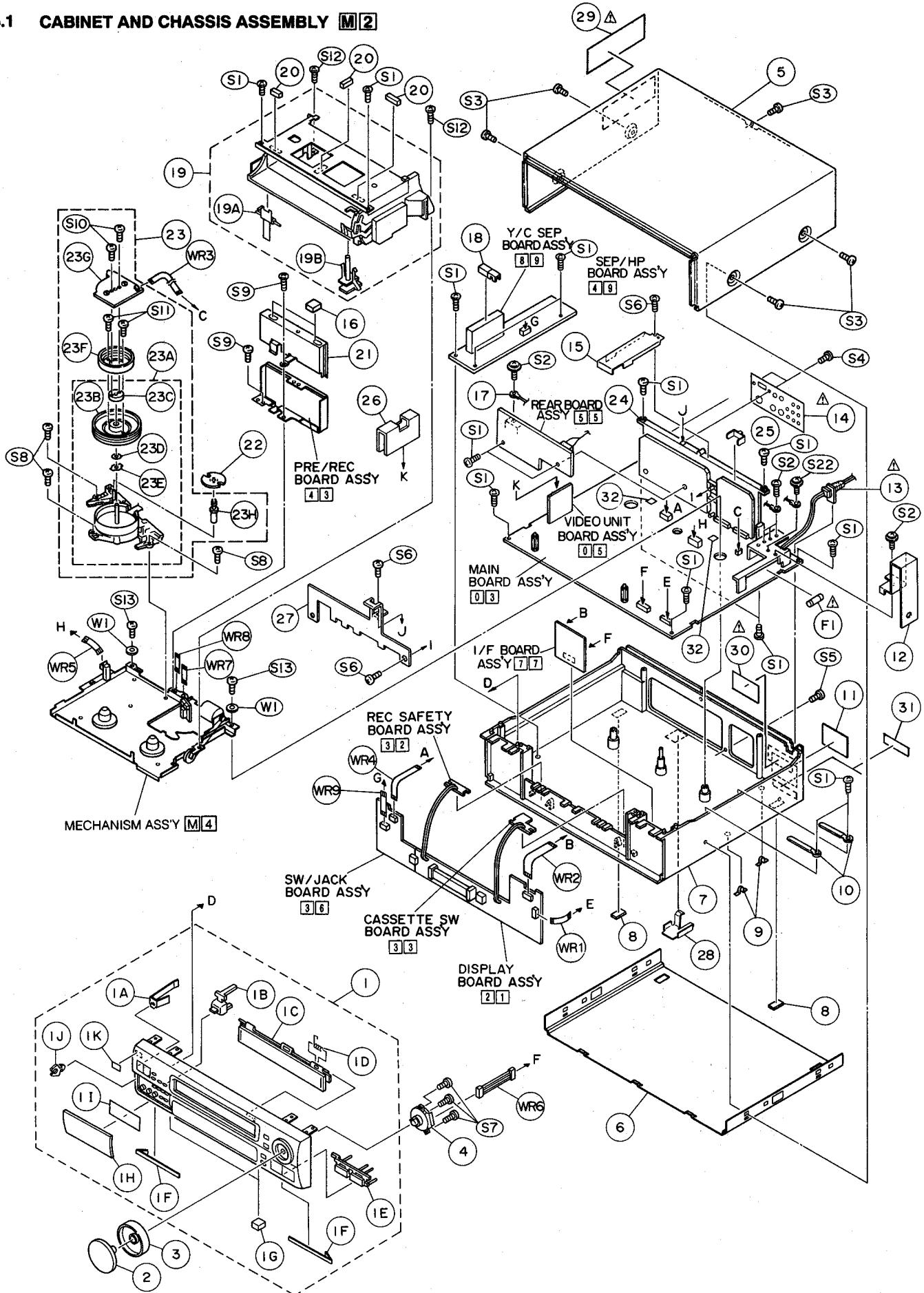


SL82023-001

SECTION 5

EXPLODED VIEWS AND PARTS LIST

5.1 CABINET AND CHASSIS ASSEMBLY M2



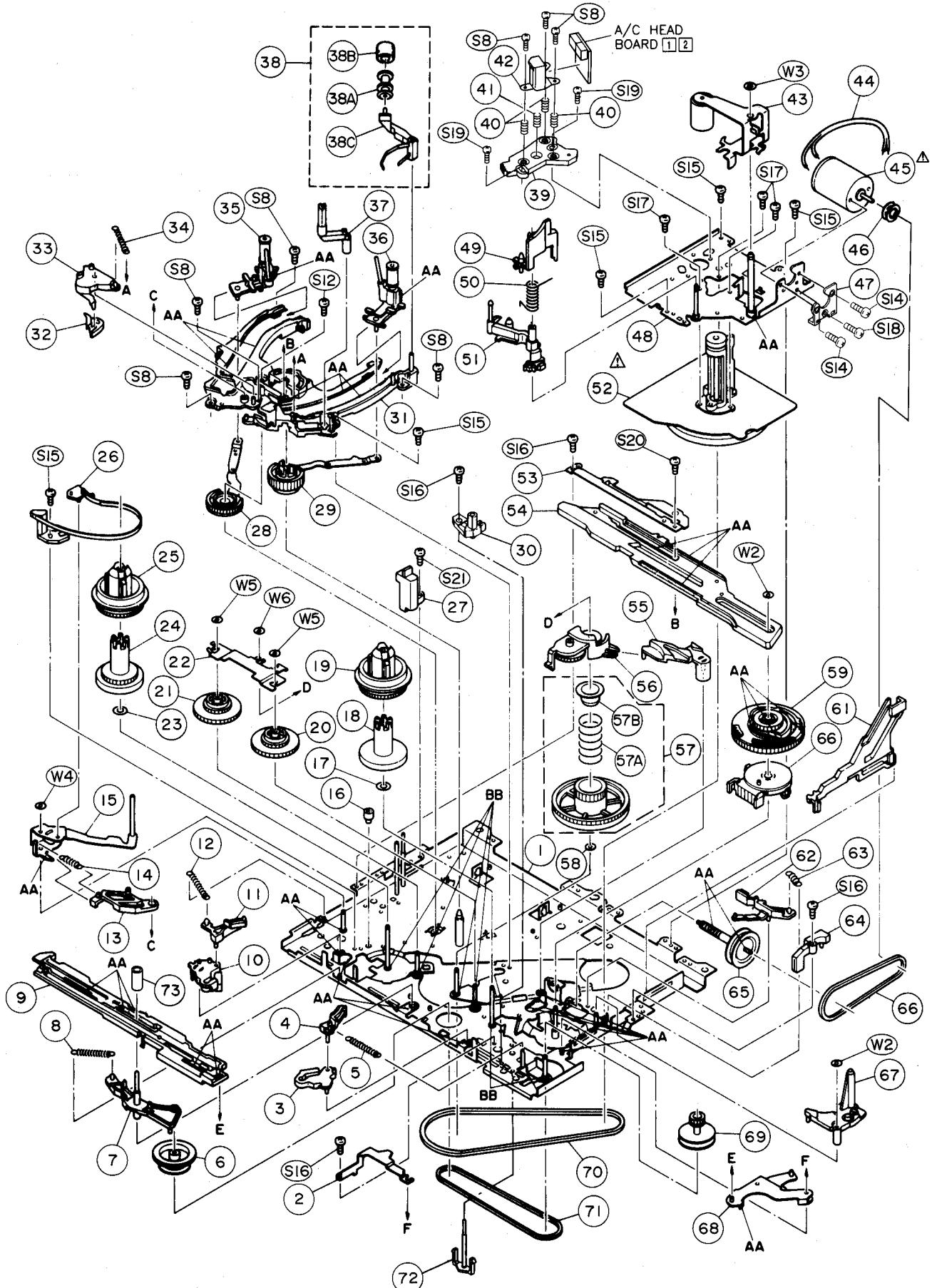
5.2 CABINET AND CHASSIS ASSEMBLY LIST M2

M2 MM □□□□

Symbol No.	Part No.	Part Name	Description
1 1A 1B 1C 1D	PQ11802AG PQ35294 PQ35290 PQ21818-24 PQ46448	FRONT PANEL ASS'Y EARTH PLATE BUTTON(3) CASSETTE DOOR TORSION SPRING	R.A.EDIT START
1E 1F 1G 1H 1I	PQ21820-11 PQ46398-4 PQ43013-7 PQ21822-24 PQ35557	BUTTON(2) PLATE(FOOT) FOOT DOOR PLATE(OPE)	STOP,PLAY
1J 1K 2 3 4	PEME0960 PQ46126-9 PQ35247-3 PQ35295-3 PEME0757-03	PUSH OPEN UNIT JVC MARK KNOB(JOG) KNOB(SHUTTLE) JOG SHUTTLE ASS'Y	
5 6 7 8 9	PQ11676-25 PQ11668-2 PQ11666-5-14 PQ43013-3 PQ46412-2	TOP COVER BOTTOM COVER BOTTOM CHASSIS FOOT EARTH SPRING	
10 11 12 13 14	PU49485-4 — PRD49005 QMPON20-200J5 PRD39013	WIRE CLAMP RATING LABEL EARTH PLATE POWER CORD SHEET	
15 16 17 18 19	PRD44919 PRD30030-150 P180-28A2A2LLCC PRD39016 PUS29724A-5	BRACKET PAD WIRE ASS'Y SPACER CASSETTE HOUSING ASS'Y	
19A 19B 20 21 22	PQ21766-1-1 PQ46359 PRD30030-147 PQ21806-1-2 PQ44230	CASSETTE SWITCH LEVER CASSETTE SWITCH PIN PAD SHIELD CASE INERTIA PLATE	
23 23A 23B 23C 23D	PDV2391A PDM2261Y PDM3353AB PDM4345A PDM4050-9	DRUM FINAL ASS'Y DRUM SUB ASS'Y UPPER DRUM ASS'Y COLLAR ASS'Y WASHER	
23E 23F 23G 23H 24	PDM4440A PDZ0141-2 PDZ0141-1-2 PDM4311A-1 PRD19003	BRUSH ASS'Y ROTOR ASS'Y STATOR ASS'Y ROLLER ASS'Y TERMINAL BOARD	
25 26 27 28 29	PRD49008 PRD39016 PRD49007 PRD49009 PRD39015-01-02	EARTH PLATE COVER (SHIELD) EARTH PLATE EARTH PLATE CAUTION LABEL	
30 31 32 F1 S1	PQ44342-4 PU47342 — QMF51N2-R70 SDSF3010Z	CAUTION LABEL STICKER PAD FUSE SCREW	Refer to electrical parts list 0.7A M3×10

Symbol No.	Part No.	Part Name	Description
S2	DPSP3006Z	SCREW	M3 × 6
S3	SXSF3012N	SCREW	M3 × 12
S4	SDSP3008M	SCREW	M3 × 8
S5	SDSF3010M	SCREW	M3 × 10
S6	SDSF3008Z	SCREW	M3 × 8
S7	SDSF2608Z	SCREW	M2.6 × 8
S8	SPST2608Z	SCREW	M2.6 × 8
S9	SDST2606Z	SCREW	M2.6 × 6
S10	SPSP2606Z	SCREW	M2.6 × 6
S11	SPSH2660Z	SCREW	M2.6 × 60
S12	SDST2612Z	SCREW	M2.6 × 12
S13	SDSF4012Z	SCREW	M4 × 12
S22	DPSF4008Z	SCREW	M4 × 8
W1	WLS4000N	WASHER	
WR1	PW30802-0814	WIRE ASS'Y	
WR2	PW30802-0510	WIRE ASS'Y	
WR3	PW30803-0422	WIRE ASS'Y	
WR4	PW30802-0538	WIRE ASS'Y	
WR5	PW30701-36AAYY	WIRE ASS'Y	
WR6	PW30202-0772018	WIRE ASS'Y	
WR7	PW30705-12AAYY	WIRE ASS'Y	
WR8	PW30702-12AAYY	WIRE ASS'Y	
WR9	PW30802-0630	WIRE ASS'Y	

5.3 MECHANISM ASSEMBLY M3



5.4 MECHANISM ASSEMBLY LIST [M3]

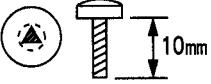
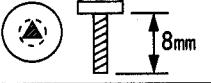
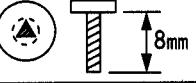
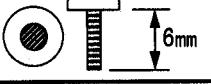
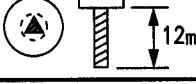
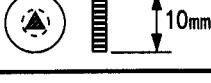
M3 MM □□□

Symbol No.	Part No.	Part Name	Description
1	PQ21680H	MAIN DECK ASS'Y	
2	PQ35217-1-2	CTL BRACKET 2	
3	PQ46308A-5	MAIN BRAKE ASS'Y(TAKE UP)	
4	PQ46309A-4	SUB BRAKE ASS'Y(TAKE UP)	
5	PQM30001-389102	TENSION SPRING	
6	PQ46354	CHANGE GEAR	
7	PQ46353A-2	CHANGE ARM ASS'Y	
8	PQM30001-386	TENSION SPRING	
9	PQ11659-1-12	SLIDE PLATE	
10	PQ46305B-3	MAIN BRAKE ASS'Y(SUPPLY)	
11	PQ46306A-3	SUB BRAKE ASS'Y(SUPPLY)	
12	PQM30001-393	TENSION SPRING	
13	PQ35012-1-3	TENSION ARM LEVER	
14	PQM30001-385109	TENSION SPRING	
15	PQ46303B-8	TENSION ARM ASS'Y	
16	PQ46302-1-3	ADJUST PIN	
17	PQM30018-69	SPACER	
18	PQ35015-1-1	SLIT DISC(TAKE UP)	
19	PQ21683-2-14	REEL DISK(TAKE UP)	
20	PQ46323A-1	CLUTCH UNIT(TAKE UP)	
21	PQ46316A-4	CLUTCH UNIT(SUPPLY)	
22	PQ35083-1-8	REEL BRACKET	
23	PQM30018-69	SPACER	
24	PQ35014-1-1	SLIT DISK(SUPPLY)	
25	PQ21683-1-14	REEL DISK (SUPPLY)	
26	PQ46298A-5	TENSION BAND ASS'Y	
27	PEHE0237	FULL ERASE HEAD	
28	PQ46332A-3	LOADING ARM ASS'Y(SUPPLY)	
29	PQ46337A-7	LOADING ARM ASS'Y(TAKE UP)	
30	PQ46474-1-2	S-SW HOLDER	
31	PQ11657-1-9	GUIDE RAIL	
32	PQ46345-1-2	TAKE UP HEAD	
33	PQ21686-1-3	TAKE UP LEVER ASS'Y	
34	PQM30001-387106	TENSION SPRING	
35	PQ46330A-3	POLE BASE ASS'Y(SUPPLY)	
36	PQ46331A-1	POLE BASE ASS'Y(TAKE UP)	
37	PQ21689-2	LED PRISM	
38	PQ46436A-1	CLEANER ASS'Y	
38A	PQ46418-1-2	CLEANER ROLLER	
38B	PQ46419-1-2	CLEANER	
38C	PQ35159-1-1	CLEANER ARM	
39	PQ35481	HEAD BASE	
40	PQM30002-192	COMPRESSION SPRING	
41	PQ46630	COMPRESSION SPRING	
42	PEHE0182	AUDIO CONTROL HEAD	
43	PQ46327A-3	PINCH ROLLER ARM ASS'Y	
44	PW30101-80AJ632	WIRE	
45	PU60628-4	LOADING MOTOR	
46	PQ43546-1-2	MOTOR PULLEY	
47	PQ46568-1-2	MOTOR GUIDE	
48	PQ46347E-16	SUB DECK ASS'Y	
49	PQ35030-1-5	LID GUIDE	
50	PQ46326-2	TORSION SPRING	
51	PQ46325B-9	GUIDE ARM ASS'Y	
52	PU61435-1-6	CAPSTAN MOTOR	

Symbol No.	Part No.	Part Name	Description
53	PQ35138-1-2	CONTROL BRACKET	
54	PQ11658-1-13	CONTROL PLATE	
55	PQ35026-1-7	IDLER LEVER	
56	PQ46312B-9	IDLER ARM ASS'Y	
57	PQ46497B-2	PULLEY ASS'Y	
57A	PQM30002-233	COMPRESSION SPRING	
57B	PQ46311	SPRING CAP	
58	PQM30018-69	SPACER	
59	PQ21684-1-3	CONTROL CAM	
60	PU61432-1-1	ROTARY ENCODER	
61	PQ21685-2-9	PINCH PLATE	
62	PQ46356C-3	CAPSTAN BRAKE ASS'Y	
63	PQM30001-384101	TENSION SPRING	
64	PQ21699-1-2	WORM BEARING	
65	PQ46395B	WORM GEAR	
66	PQM30003-39	BELT	
67	PQ46342B-10	LEVER ASS'Y	
68	PQ46344A-2	CHANGE LEVER ASS'Y	
69	PQ46355	CASSETTE GEAR	
70	PQM30003-38	BELT	
71	PQM30003-40	BELT	
72	PQ46473-1-1	S-SW PIN	
73	PRD44944	COLLAR	
S8	SPST2608Z	SCREW	M2.6×8
S12	SDST2612Z	SCREW	M2.6×12
S14	SPSP3005Z	SCREW	M3×5
S15	SDST2608Z	SCREW	M2.6×8
S16	SPST2606Z	SCREW	M2.6×6
S17	SPSG2608Z	SCREW	M2.6×8
S18	SDSP2604Z	SCREW	M2.6×4
S19	SDSP2606Z	SCREW	M2.6×6
S20	SPSF2608M	SCREW	M2.6×8
S21	SDST2610Z	SCREW	M2.6×10
W2	PQM30017-8	SLIT WASHER	
W3	PQM30017-24	SLIT WASHER	
W4	PQM30017-47	SLIT WASHER	
W5	PQM30017-51	SLIT WASHER	
W6	Q03093-830	WASHER	

5.5 TABLE OF SCREWS USED IN THIS SET

The numbers of screws shown below respectively accord with numbers of screws appearing in this section.

S1	S2	S3	S4	S5
SDSF3010Z M3 × 10, Gold	DPSP3006Z M3 × 6, Gold	SXSF3012N M3 × 12, Silver	SDSP3008M M3 × 8, Black	SDSF3010M M3 × 10, Black
				
S6	S7	S8	S9	S10
SDSF3008Z M3 × 8, Gold	SDSF2608Z M2.6 × 8, Gold	SPST2608Z M2.6 × 8, Gold	SDST2606Z M2.6 × 6, Gold	SPSP2606Z M2.6 × 6, Gold
				
S11	S12	S13	S14	S15
SPSH2660Z M2.6 × 6.0	SDST2612Z M2.6 × 12, Gold	SDSF4012Z M4 × 12, Gold	SPSP3005Z M3 × 5, Gold	SDST2608Z M2.6 × 8, Gold
				
S16	S17	S18	S19	S20
SPST2606Z M2.6 × 6, Gold	SPSG2608Z M2.6 × 8, Gold	SDSP2604Z M2.6 × 4, Gold	SDSP2606Z M2.6 × 6, Gold	SPSF2608M M2.6 × 8, Black
				
S21	S22			
SDST2610Z M2.6 × 10, Gold	DPSP4008Z M4 × 8, Gold			
				

SECTION 6

ELECTRICAL PARTS LIST

SAFETY PRECAUTION:

Parts identified by the Δ symbol are critical for safety. Replace only with specified parts numbers. For maximum reliability and performance, all other replacement parts should be identical to those specified.

NOTE:

- Parts not denoted by parts numbers are not supplied by JVC.
- Abbreviations in this list are as follows:

RESISTORS

In the "Description" column:

All resistance values are in ohms (Ω).
K expresses kilo-ohm (1,000 ohms, $k\Omega$).
M expresses mega-ohm (10^6 ohms, $M\Omega$).

In the "Parts Name" column:

COMP. RESISTOR	:	Composition Resistor
U.F. RESISTOR	:	Non-inflammable Resistor
O.M.F. RESISTOR	:	Oxide Metalized Film Resistor
FUSI. RESISTOR	:	Fusible Resistor
M.P. RESISTOR	:	Metal Plate Resistor
M.G. RESISTOR	:	Metal Graze Resistor
M.F. RESISTOR	:	Metal Film Resistor
W.W. RESISTOR	:	Wire Wound Resistor

CAPACITORS

In the "Description" column:

All capacitance values are in microfarad (μF) unless otherwise indicated.
P expresses picofarad (10^{-12} farad, pF).

In the "Parts Name" column:

TRIM. CAPACITOR	:	Trimmer Capacitor
CER. CAPACITOR	:	Ceramic Capacitor
E. CAPACITOR	:	Electrolytic Capacitor
TAN. CAPACITOR	:	Tantalum Capacitor
MPP CAPACITOR	:	Metalized Polypropylene Capacitor
O.F. CAPACITOR	:	Oil Film Capacitor
MPF CAPACITOR	:	Metalized Polyfilm Capacitor
F.M. CAPACITOR	:	Film Mica Capacitor
P.P. CAPACITOR	:	Polypropylene Capacitor
P.S. CAPACITOR	:	Polystyrene Capacitor

6.1 MAIN BOARD ASSEMBLY LIST 03

SLK1036-00A

03□□□□□

Symbol No.	Part No.	Part Name	Description
IC1	JCP0056	I.C.(M)	JVC
IC2	AN3969K	I.C.(M)	MATSUSHITA
IC3	BA6138	I.C.(M)	ROHM
IC101	BA7795LS	I.C.(M)	ROHM
IC301	UPD6459ACS-501	I.C.(M)	NEC
IC351	MM1117XS	I.C.(M)	MITSUMI
IC352	BA7623F	I.C.(M)	ROHM
IC401	BU2881BS	I.C.(M)	ROHM
IC451	BA7039	I.C.(M)	ROHM
IC601	HD6473927F-0**	I.C.(M)	HITACHI
IC602	BR93LC56A	I.C.(M)	ROHM
IC603	S-80728AN-Z	I.C.(M)	SEIKO
IC604	TA7291S	I.C.(M)	TOSHIBA
IC607	M50253P	I.C.(M)	MITSUBISHI
IC608	TC4021BP	I.C.(M)	TOSHIBA
IC751	M37470M3-054SP	I.C.(M)	MITSUBISHI
Q1	DTC143TU	TRANSISTOR	ROHM
Q2	DTC143TU	TRANSISTOR	ROHM
Q3	DTC143TU	TRANSISTOR	ROHM
Q51	2SD1450STTA	TRANSISTOR	MATSUSHITA
Q52	2SC3311A(RS)	TRANSISTOR	MATSUSHITA
Q101	DTC114EU	TRANSISTOR	ROHM
Q131	2SC4081(QRS)	TRANSISTOR	ROHM
Q132	2SA933S(RS)	TRANSISTOR	ROHM
Q133	2SA933S(RS)	TRANSISTOR	ROHM
Q134	2SC4081(QRS)	TRANSISTOR	ROHM
Q135	2SA933S(RS)	TRANSISTOR	ROHM
Q201	2SC4081(QRS)	TRANSISTOR	ROHM
Q202	2SA1576(QRS)	TRANSISTOR	ROHM
Q203	2SC4081(QRS)	TRANSISTOR	ROHM
Q221	2SC4081(QRS)	TRANSISTOR	ROHM
Q222	2SC4081(QRS)	TRANSISTOR	ROHM
Q223	2SC4081(QRS)	TRANSISTOR	ROHM
Q241	DTC144EU	TRANSISTOR	ROHM
Q242	2SC4081(QRS)	TRANSISTOR	ROHM
Q243	2SC4081(QRS)	TRANSISTOR	ROHM
Q261	DTC144EU	TRANSISTOR	ROHM
Q262	DTC124EU	TRANSISTOR	ROHM
Q263	DTC124EU	TRANSISTOR	ROHM
Q264	DTC124EU	TRANSISTOR	ROHM
Q281	DTC124EU	TRANSISTOR	ROHM
Q282	DTA114EU	TRANSISTOR	ROHM
Q301	2SA1576(QRS)	TRANSISTOR	ROHM
Q302	2SC4081(QRS)	TRANSISTOR	ROHM
Q351	2SA1576(QRS)	TRANSISTOR	ROHM
Q352	2SC4081(QRS)	TRANSISTOR	ROHM
Q401	DTC114EU	TRANSISTOR	ROHM
Q601	2SC4081(QRS)	TRANSISTOR	ROHM
Q602	PN268VI-NC	PHOTO TRANSISTO	MATSUSHITA
HD1	PQ46408-1-2	SENSOR CAP	FOR Q602
Q603	PN268VI-NC	PHOTO TRANSISTO	MATSUSHITA
HD2	PQ46408-1-2	SENSOR CAP	FOR Q603

Symbol No.	Part No.	Part Name	Description
Q604	DTC124EU	TRANSISTOR	ROHM
Q605	DTC124EU	TRANSISTOR	ROHM
Q606	DTC143EU	TRANSISTOR	ROHM
Q801	2SK1976	F.E.T.	ROHM
Q802	2SC3616(MLK)	TRANSISTOR	NEC
Q851	2SC1740S(RS)	TRANSISTOR	ROHM
Q881	2SC3616(MLK)	TRANSISTOR	NEC
Q882	2SD1266(PQ)	TRANSISTOR	MATSUSHITA
Q883	2SC4081(QRS)	TRANSISTOR	ROHM
Q884	DTA114EU	TRANSISTOR	ROHM
Q885	DTC143TU	TRANSISTOR	ROHM
Q886	2SB1256	TRANSISTOR	ROHM
D101	RD6.2ES-T1B2	ZENER DIODE	NEC
D102	DAP202U	DIODE	ROHM
D262	1SS133	DIODE	ROHM
D264	1SS133	DIODE	ROHM
D283	1SS133	DIODE	ROHM
D351	RD9.1EW	ZENER DIODE	NEC
D352	RD9.1EW	ZENER DIODE	NEC
D451	1SS133	DIODE	ROHM
D601	11ES2	DIODE	NIPPON INTER
D602	11ES2	DIODE	NIPPON INTER
D603	RD9.1ES-T1B2	ZENER DIODE	NEC
D604	1SS133	DIODE	ROHM
D605	1SS133	DIODE	ROHM
D606	1SS133	DIODE	ROHM
D607	1SS133	DIODE	ROHM
D608	1SS133	DIODE	ROHM
D609	SIR-381SB3FX1M	LE.DIODE	
D610	RB7210-40-T2	DIODE	ROHM
D611	QRD161J-0R0	CARBON RESISTOR	O 1/6W
D801	10E6-F2	DIODE	INTER
D802	10E6-F2	DIODE	INTER
D803	10E6-F2	DIODE	INTER
D804	10E6-F2	DIODE	INTER
D807	RD15ES-T1B3	ZENER DIODE	NEC
D808	1SS133	DIODE	ROHM
D852	RL2Z-LFB2	DIODE	SANKEN
D853	RL2Z-LFB2	DIODE	SANKEN
D854	RL2Z-LFB2	DIODE	SANKEN
D856	RK14LF	DIODE	SANKEN
D857	AU01Z-T	DIODE	SANKEN
D858	1SR153-400-T2	DIODE	ROHM
D860	RD15ES-T1B1	ZENER DIODE	NEC
D861	RD6.2ES	ZENER DIODE	NEC
D862	MTZ30A	ZENER DIODE	ROHM
D863	1SR153-400-T2	DIODE	ROHM
D865	RL2Z-LFB2	DIODE	SANKEN
D866	RL2Z-LFB2	DIODE	SANKEN
D867	RL2Z-LFB2	DIODE	SANKEN
D882	RD5.1JSB1-T2	ZENER DIODE	NEC
D883	1SS133	DIODE	ROHM
D885	11ES2	DIODE	NIPPON INTER
△ PC801	PC817	I.C(PH COUPLER)	

Symbol No.	Part No.	Part Name	Description	Symbol No.	Part No.	Part Name	Description		
R1	QRSA08J-511	M.G.RESISTOR	510	1/10W	R134	QRSA08J-153	M.G.RESISTOR	15K	1/10W
R2	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	R135	QRSA08J-3R3	M.G.RESISTOR	3.3	1/10W
R3	QRSA08J-123	M.G.RESISTOR	12K	1/10W	R136	QRSA08J-103	M.G.RESISTOR	10K	1/10W
R4	QRSA08J-392	M.G.RESISTOR	3.9K	1/10W	R137	QRSA08J-183	M.G.RESISTOR	18K	1/10W
R5	NRVA62D-153	M.F.RESISTOR	15K	1/16W	R138	QRSA08J-473	M.G.RESISTOR	47K	1/10W
R6	QRSA08J-103	M.G.RESISTOR	10K	1/10W	R139	QRSA08J-273	M.G.RESISTOR	27K	1/10W
R7	QRSA08J-103	M.G.RESISTOR	10K	1/10W	R140	QRSA08J-473	M.G.RESISTOR	47K	1/10W
R8	QRSA08J-334	M.G.RESISTOR	330K	1/10W	R141	ORD161J-101	C.RESISTOR	100	1/6W
R11	NRVA62D-113	M.F.RESISTOR	11K	1/16W	R142	QRSA08J-153	M.G.RESISTOR	15K	1/10W
R12	QRSA08J-123	M.G.RESISTOR	12K	1/10W	R143	ORD161J-151	C.RESISTOR	150	1/6W
R13	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	R144	QRSA08J-3R3	M.G.RESISTOR	3.3	1/10W
R14	QRSA08J-511	M.G.RESISTOR	510	1/10W	R145	QRSA08J-473	M.G.RESISTOR	47K	1/10W
R28	QRSA08J-332	M.G.RESISTOR	3.3K	1/10W	R146	QRSA08J-183	M.G.RESISTOR	18K	1/10W
R29	QRSA08J-392	M.G.RESISTOR	3.9K	1/10W	R147	ORD161J-0R0	C.RESISTOR	0	1/6W
R30	QRSA08J-392	M.G.RESISTOR	3.9K	1/10W	R148	ORD161J-0R0	C.RESISTOR	0	1/6W
R31	QRSA08J-392	M.G.RESISTOR	3.9K	1/10W	R201	QRSA08J-101	M.G.RESISTOR	100	1/10W
R32	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R202	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R33	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R203	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R34	QRSA08J-152	M.G.RESISTOR	1.5K	1/10W	R204	QRSA08J-471	M.G.RESISTOR	470	1/10W
R36	QCYA1EK-104	CER.CAPACITOR	0.10	25V	R205	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R37	QCYA1EK-104	CER.CAPACITOR	0.10	25V	R206	QRSA08J-182	M.G.RESISTOR	1.8K	1/10W
R38	QRSA08J-221	M.G.RESISTOR	220	1/10W	R207	QRSA08J-222	M.G.RESISTOR	2.2K	1/10W
R39	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R208	QRSA08J-182	M.G.RESISTOR	1.8K	1/10W
R51	QRSA08J-101	M.G.RESISTOR	100	1/10W	R209	QRSA08J-222	M.G.RESISTOR	2.2K	1/10W
R52	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R221	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R53	QRSA08J-331	M.G.RESISTOR	330	1/10W	R224	QRSA08J-153	M.G.RESISTOR	15K	1/10W
R61	QRSA08J-393	M.G.RESISTOR	39K	1/10W	R225	QRSA08J-153	M.G.RESISTOR	15K	1/10W
R62	QRSA08J-223	M.G.RESISTOR	22K	1/10W	R226	QRSA08J-821	M.G.RESISTOR	820	1/10W
R63	QRSA08J-183	M.G.RESISTOR	18K	1/10W	R227	QRSA08J-152	M.G.RESISTOR	1.5K	1/10W
R64	QRSA08J-393	M.G.RESISTOR	39K	1/10W	R229	QRSA08J-272	M.G.RESISTOR	2.7K	1/10W
R65	QRSA08J-473	M.G.RESISTOR	47K	1/10W	R231	QRSA08J-301	M.G.RESISTOR	300	1/10W
R66	QRSA08J-223	M.G.RESISTOR	22K	1/10W	R241	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R72	QRSA08J-183	M.G.RESISTOR	18K	1/10W	R243	QRSA08J-103	M.G.RESISTOR	10K	1/10W
R73	QRSA08J-473	M.G.RESISTOR	47K	1/10W	R244	QRSA08J-153	M.G.RESISTOR	15K	1/10W
R81	QRSA08J-103	M.G.RESISTOR	10K	1/10W	R245	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R82	QRSA08J-104	M.G.RESISTOR	100K	1/10W	R246	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R83	QRSA08J-104	M.G.RESISTOR	100K	1/10W	R247	QRSA08J-123	M.G.RESISTOR	12K	1/10W
R84	QRSA08J-103	M.G.RESISTOR	10K	1/10W	R248	QRSA08J-822	M.G.RESISTOR	8.2K	1/10W
R102	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R249	QRSA08J-270	M.G.RESISTOR	27	1/10W
R103	QRSA08J-123	M.G.RESISTOR	12K	1/10W	R250	QRSA08J-331	M.G.RESISTOR	330	1/10W
R104	QRSA08J-432	M.G.RESISTOR	4.3K	1/10W	R251	QRSA08J-221	M.G.RESISTOR	220	1/10W
R105	QRSA08J-273	M.G.RESISTOR	27K	1/10W	R252	QRSA08J-331	M.G.RESISTOR	330	1/10W
R106	QRSA08J-681	M.G.RESISTOR	680	1/10W	R253	QRSA08J-122	M.G.RESISTOR	1.2K	1/10W
R107	QRSA08J-682	M.G.RESISTOR	6.8K	1/10W	R261	QRSA08J-103	M.G.RESISTOR	10K	1/10W
R108	QRSA08J-471	M.G.RESISTOR	470	1/10W	R264	QRSA08J-183	M.G.RESISTOR	18K	1/10W
R109	QRSA08J-471	M.G.RESISTOR	470	1/10W	R265	QRSA08J-333	M.G.RESISTOR	33K	1/10W
R110	QRSA08J-273	M.G.RESISTOR	27K	1/10W	R268	QRSA08J-272	M.G.RESISTOR	2.7K	1/10W
R111	QRSA08J-181	M.G.RESISTOR	180	1/10W	R269	QRSA08J-222	M.G.RESISTOR	2.2K	1/10W
R112	QRSA08J-822	M.G.RESISTOR	8.2K	1/10W	R271	QRSA08J-393	M.G.RESISTOR	39K	1/10W
R113	QRSA08J-682	M.G.RESISTOR	6.8K	1/10W	R282	QRSA08J-562	M.G.RESISTOR	5.6K	1/10W
R114	QRSA08J-475	M.G.RESISTOR	4.7M	1/10W	R283	QRSA08J-333	M.G.RESISTOR	33K	1/10W
R115	ORD161J-221	C.RESISTOR	220	1/6W	R284	QRSA08J-562	M.G.RESISTOR	5.6K	1/10W
R116	QRSA08J-222	M.G.RESISTOR	2.2K	1/10W	R287	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R117	QRSA08J-221	M.G.RESISTOR	220	1/10W	R301	QRSA08J-331	M.G.RESISTOR	330	1/10W
R118	QRSA08J-274	M.G.RESISTOR	270K	1/10W	R302	QRSA08J-680	M.G.RESISTOR	68	1/10W
R119	QRSA08J-391	M.G.RESISTOR	390	1/10W	R303	QRSA08J-223	M.G.RESISTOR	22K	1/10W
R120	ORD161J-103	C.RESISTOR	10K	1/6W	R305	QRSA08J-563	M.G.RESISTOR	56K	1/10W
R131	QRSA08J-473	M.G.RESISTOR	47K	1/10W	R306	QRSA08J-224	M.G.RESISTOR	220K	1/10W
R132	QRSA08J-562	M.G.RESISTOR	5.6K	1/10W	R307	QRSA08J-222	M.G.RESISTOR	2.2K	1/10W
R133	QRSA08J-682	M.G.RESISTOR	6.8K	1/10W	R308	QRSA08J-391	M.G.RESISTOR	390	1/10W

[MAIN]

Symbol No.	Part No.	Part Name	Description		Symbol No.	Part No.	Part Name	Description	
R310	QRSA08J-154	M.G.RESISTOR	150K	1/10W	R612	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R311	QRSA08J-822	M.G.RESISTOR	8.2K	1/10W	R613	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R312	QRSA08J-682	M.G.RESISTOR	6.8K	1/10W	R614	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R313	QRSA08J-222	M.G.RESISTOR	2.2K	1/10W	R615	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R314	QRSA08J-222	M.G.RESISTOR	2.2K	1/10W	R616	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R315	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R617	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R316	QRSA08J-105	M.G.RESISTOR	1.0M	1/10W	R618	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R317	QRSA08J-473	M.G.RESISTOR	47K	1/10W	R619	QRSA08J-221	M.G.RESISTOR	220	1/10W
R318	QRSA08J-153	M.G.RESISTOR	15K	1/10W	R624	QRSA08J-332	M.G.RESISTOR	3.3K	1/10W
R319	QRSA08J-221	M.G.RESISTOR	220	1/10W	R625	QRSA08J-332	M.G.RESISTOR	3.3K	1/10W
R320	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R626	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R321	QRSA08J-122	M.G.RESISTOR	1.2K	1/10W	R627	QRSA08J-221	M.G.RESISTOR	220	1/10W
R322	QRSA08J-681	M.G.RESISTOR	680	1/10W	R629	QRSA08J-221	M.G.RESISTOR	220	1/10W
R351	QRSA08J-750	M.G.RESISTOR	75	1/10W	R630	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R352	QRSA08J-750	M.G.RESISTOR	75	1/10W	R631	QRSA08J-681	M.G.RESISTOR	680	1/10W
R353	QRSA08J-750	M.G.RESISTOR	75	1/10W	R632	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R355	QRSA08J-750	M.G.RESISTOR	75	1/10W	R635	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R357	QRSA08J-750	M.G.RESISTOR	75	1/10W	R638	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R359	QRSA08J-750	M.G.RESISTOR	75	1/10W	R639	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R363	QRSA08J-332	M.G.RESISTOR	3.3K	1/10W	R641	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R364	QRSA08J-333	M.G.RESISTOR	33K	1/10W	R643	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R366	QRSA08J-0R0	M.G.RESISTOR	0	1/10W	R644	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R367	QRSA08J-0R0	M.G.RESISTOR	0	1/10W	R645	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R368	QRSA08J-0R0	M.G.RESISTOR	0	1/10W	R646	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R369	QRSA08J-181	M.G.RESISTOR	180	1/10W	R647	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R370	QRSA08J-471	M.G.RESISTOR	470	1/10W	R648	QRSA08J-101	M.G.RESISTOR	100	1/10W
R371	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R649	QRSA08J-471	M.G.RESISTOR	470	1/10W
R373	QRSA08J-562	M.G.RESISTOR	5.6K	1/10W	R650	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R375	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R651	QRSA08J-101	M.G.RESISTOR	100	1/10W
R379	QRSA08J-750	M.G.RESISTOR	75	1/10W	R652	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R401	QRSA08J-561	M.G.RESISTOR	560	1/10W	R654	QRSA08J-272	M.G.RESISTOR	2.7K	1/10W
R402	QRSA08J-561	M.G.RESISTOR	560	1/10W	R655	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R403	QRSA08J-103	M.G.RESISTOR	10K	1/10W	R658	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R404	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R659	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W
R405	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R661	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R406	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R662	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R408	QRSA08J-562	M.G.RESISTOR	5.6K	1/10W	R663	QRSA08J-152	M.G.RESISTOR	1.5K	1/10W
R410	QRSA08J-222	M.G.RESISTOR	2.2K	1/10W	R664	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R411	QRSA08J-222	M.G.RESISTOR	2.2K	1/10W	R667	QRSA08J-221	M.G.RESISTOR	220	1/10W
R412	QRSA08J-562	M.G.RESISTOR	5.6K	1/10W	R668	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R413	QRSA08J-103	M.G.RESISTOR	10K	1/10W	R669	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R414	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R671	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R415	QRSA08J-103	M.G.RESISTOR	10K	1/10W	R672	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R418	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R673	QRSA08J-104	M.G.RESISTOR	100K	1/10W
R451	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R674	QRSA08J-682	M.G.RESISTOR	6.8K	1/10W
R452	QRSA08J-392	M.G.RESISTOR	3.9K	1/10W	R675	QRSA08J-103	M.G.RESISTOR	10K	1/10W
R453	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R676	QRSA08J-103	M.G.RESISTOR	10K	1/10W
R454	QRSA08J-123	M.G.RESISTOR	12K	1/10W	R682	QRSA08J-223	M.G.RESISTOR	22K	1/10W
R455	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	R684	QRSA08J-223	M.G.RESISTOR	22K	1/10W
R456	QRSA08J-154	M.G.RESISTOR	150K	1/10W	R685	QRSA08J-103	M.G.RESISTOR	10K	1/10W
R458	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R686	QRSA08J-221	M.G.RESISTOR	220	1/10W
R602	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R687	QRD161J-750	C.RESISTOR	75	1/6W
R603	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	R688	QRSA08J-221	M.G.RESISTOR	220	1/10W
R604	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	R692	QRSA08J-471	M.G.RESISTOR	470	1/10W
R605	QRSA08J-105	M.G.RESISTOR	1.0M	1/10W	R693	QRSA08J-333	M.G.RESISTOR	33K	1/10W
R606	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	R696	QRSA08J-471	M.G.RESISTOR	470	1/10W
R607	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	R699	QRSA08J-104	M.G.RESISTOR	100K	1/10W
R608	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	R700	QRSA08J-101	M.G.RESISTOR	100	1/10W
R609	QRSA08J-221	M.G.RESISTOR	220	1/10W	R701	QRSA08J-104	M.G.RESISTOR	100K	1/10W
R611	QRSA08J-221	M.G.RESISTOR	220	1/10W	R702	QRSA08J-101	M.G.RESISTOR	100	1/10W

Symbol No.	Part No.	Part Name	Description		Symbol No.	Part No.	Part Name	Description	
R703	QRSA08J-101	M.G.RESISTOR	100	1/10W	R891	QRD161J-102	C.RESISTOR	1.0K	1/6W
R704	QRSA08J-473	M.G.RESISTOR	47K	1/10W	R896	QRSA08J-222	M.G.RESISTOR	2.2K	1/10W
R705	QRSA08J-333	M.G.RESISTOR	33K	1/10W	R897	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R706	QRSA08J-103	M.G.RESISTOR	10K	1/10W	VR1	PGZ02461-104	V RESISTOR	100K(R67)	A LEV (L)
R707	QRSA08J-103	M.G.RESISTOR	10K	1/10W	VR2	PGZ02461-104	V RESISTOR	100K(R74)	A LEV (R)
R708	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	VR301	PGZ02461-333	V RESISTOR	33K(R309)	fH
R709	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	VR801	PGZ02461-471	V RESISTOR	470(R885)	SWD 5V
R710	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	C1	QEK61AM-336	E.CAPACITOR	33	10V
R712	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	C2	QCYA1EK-473	CER.CAPACITOR	0.047	25V
R715	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	C3	QEK61CM-106	E.CAPACITOR	10	16V
R716	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	C4	QEK61AM-107	E.CAPACITOR	100	10V
R717	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	C5	NCB21EK-153	CER.CAPACITOR	0.015	25V
R718	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	C6	QCYA1HK-103	CER.CAPACITOR	0.010	50V
R719	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	C7	QCYA1EK-104	CER.CAPACITOR	0.10	25V
R720	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	C8	QETA1AM-107	E.CAPACITOR	100	10V
R721	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	C9	QCSA1HJ-102	CER.CAPACITOR	1000P	50V
R722	QRSA08J-103	M.G.RESISTOR	10K	1/10W	C12	QCYA1HK-103	CER.CAPACITOR	0.010	50V
R723	QRSA08J-103	M.G.RESISTOR	10K	1/10W	C13	QCYA1EK-473	CER.CAPACITOR	0.047	25V
R724	QRSA08J-103	M.G.RESISTOR	10K	1/10W	C14	QEK61HM-224	E.CAPACITOR	0.22	50V
R725	QRSA08J-103	M.G.RESISTOR	10K	1/10W	C15	QCYA1EK-104	CER.CAPACITOR	0.10	25V
R726	QRSA08J-103	M.G.RESISTOR	10K	1/10W	C16	QCYA1HK-103	CER.CAPACITOR	0.010	50V
R727	QRSA08J-103	M.G.RESISTOR	10K	1/10W	C17	QEK61AM-107	E.CAPACITOR	100	10V
R751	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	C18	NCB21EK-153	CER.CAPACITOR	0.015	25V
R752	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	C19	QEK61AM-107	E.CAPACITOR	100	10V
R753	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	C20	QEK61CM-106	E.CAPACITOR	10	16V
R754	QRSA08J-105	M.G.RESISTOR	1.0M	1/10W	C21	QCYA1EK-473	CER.CAPACITOR	0.047	25V
R755	QRSA08J-681	M.G.RESISTOR	680	1/10W	C22	QEK61AM-336	E.CAPACITOR	33	10V
R756	QRSA08J-104	M.G.RESISTOR	100K	1/10W	C24	QEK61CM-476	E.CAPACITOR	47	16V
R757	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	C25	QCC11EK-473	CER.CAPACITOR	0.047	25V
R758	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W	C27	QEK61CM-106	E.CAPACITOR	10	16V
R760	QRSA08J-223	M.G.RESISTOR	22K	1/10W	C28	QEK61CM-106	E.CAPACITOR	10	16V
R761	QRSA08J-223	M.G.RESISTOR	22K	1/10W	C29	QEK61AM-107	E.CAPACITOR	100	10V
R762	QRSA08J-223	M.G.RESISTOR	22K	1/10W	C35	QEK61CM-106	E.CAPACITOR	10	16V
R763	QRSA08J-471	M.G.RESISTOR	470	1/10W	C36	QEK61CM-106	E.CAPACITOR	10	16V
R764	QRSA08J-471	M.G.RESISTOR	470	1/10W	C38	QEK61CM-476	E.CAPACITOR	47	16V
R765	QRSA08J-471	M.G.RESISTOR	470	1/10W	C39	QEK61CM-476	E.CAPACITOR	47	16V
R776	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	C51	QETA1CM-476	E.CAPACITOR	47	16V
R777	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	C52	QETA1CM-476	E.CAPACITOR	47	16V
R778	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W	C61	QEK61CM-106	E.CAPACITOR	10	16V
R779	QRSA08J-334	M.G.RESISTOR	330K	1/10W	C62	QEK61CM-106	E.CAPACITOR	10	16V
R804	QRD161J-683	C.RESISTOR	68K	1/6W	C67	QEK61CM-476	E.CAPACITOR	47	16V
R805	QRD161J-683	C.RESISTOR	68K	1/6W	C68	QEK61CM-476	E.CAPACITOR	47	16V
R808	QRX014J-R27	M.F.RESISTOR	0.27	1W	C69	QCYA1EK-393	CER.CAPACITOR	0.039	25V
R810	QRG016J-331	O.M.F.RESISTOR	330	1W	C72	QCC11EK-104	CER.CAPACITOR	0.10	25V
R811	QRD161J-152	C.RESISTOR	1.5K	1/6W	C73	QCYA1EK-393	CER.CAPACITOR	0.039	25V
R814	QRD161J-561	C.RESISTOR	560	1/6W	C81	QEK61HM-475	E.CAPACITOR	4.7	50V
R815	QRD161J-473	C.RESISTOR	47K	1/6W	C82	QEK61HM-475	E.CAPACITOR	4.7	50V
R816	QRD161J-224	C.RESISTOR	220K	1/6W	C83	QEK61CM-476	E.CAPACITOR	47	16V
R851	QRX014J-4R7	M.F.RESISTOR	4.7	1W	C84	QEK61CM-106	E.CAPACITOR	10	16V
R852	QRZ0077-470	UNF RESISTOR			C85	QEK61CM-106	E.CAPACITOR	10	16V
R854	QRV144F-4870	M.F.RESISTOR	487	1/4W	C101	NCS21HJ-222	CER.CAPACITOR	2200P	50V
R855	QRD161J-471	C.RESISTOR	470	1/6W	C102	QER41CM-476	E.CAPACITOR	47	16V
R856	QRV144F-3740	M.F.RESISTOR	374	1/4W	C104	QER41HM-105	E.CAPACITOR	1.0	50V
R857	QRD161J-122	C.RESISTOR	1.2K	1/6W	C105	QCC11EJ-682	CER.CAPACITOR	6800P	25V
R881	QRSA08J-471	M.G.RESISTOR	470	1/10W	C106	QCC11EJ-223	CER.CAPACITOR	0.022	25V
R882	QRD161J-473	C.RESISTOR	47K	1/6W	C107	QEK61HM-475	E.CAPACITOR	4.7	50V
R883	QRSA08J-103	M.G.RESISTOR	10K	1/10W	C108	QCSA1HJ-681	CER.CAPACITOR	680P	50V
R884	QRD161J-471	C.RESISTOR	470	1/6W					
R886	QRSA08J-471	M.G.RESISTOR	470	1/10W					
R888	QRSA08J-102	M.G.RESISTOR	1.0K	1/10W					

[MAIN]

Symbol No.	Part No.	Part Name	Description		Symbol No.	Part No.	Part Name	Description	
C109	NCB21EK-123	CER.CAPACITOR	0.012	25V	C312	QEK61CM-106	E.CAPACITOR	10	16V
C110	QEK61CM-226	E.CAPACITOR	22	16V	C313	QCVB1CN-103	CER.CAPACITOR	0.010	16V
C111	QEK61HM-104	E.CAPACITOR	0.10	50V	C314	QCTA1CH-220	CER.CAPACITOR	22P	50V
C112	QEK61HM-475	E.CAPACITOR	4.7	50V	C315	QCTA1CH-330	CER.CAPACITOR	33P	50V
C113	QEK61HM-335	E.CAPACITOR	3.3	50V	C316	QCTA1CH-270	CER.CAPACITOR	27P	50V
C114	QCC11EJ-183	CER.CAPACITOR	0.018	25V	C317	QCTA1CH-270	CER.CAPACITOR	27P	50V
C115	QEK61CM-476	E.CAPACITOR	47	16V	C318	QCTA1CH-101	CER.CAPACITOR	100P	50V
C131	QCSA1HJ-331	CER.CAPACITOR	330P	50V	C319	QCSA1HJ-101	CER.CAPACITOR	100P	50V
C132	QFN41HJ-333	MY.CAPACITOR	0.033	50V	C320	QCTA1CH-220	CER.CAPACITOR	22P	50V
C133	QEK61HM-225	E.CAPACITOR	2.2	50V	C321	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C134	QCYA1HK-472	CER.CAPACITOR	4700P	50V	C351	QETA0JM-108	E.CAPACITOR	1000	6.3V
C135	QCYA1HK-103	CER.CAPACITOR	0.010	50V	C352	QETA1HM-106	E.CAPACITOR	10	50V
C136	QFN41HJ-333	MY.CAPACITOR	0.033	50V	C353	QETA1HM-106	E.CAPACITOR	10	50V
C137	QEK61CM-106	E.CAPACITOR	10	16V	C355	QETN0JM-108	E.CAPACITOR	1000	6.3V
C138	QCYA1HK-332	CER.CAPACITOR	3300P	50V	C356	QETN0JM-108	E.CAPACITOR	1000	6.3V
C139	QCYA1HK-103	CER.CAPACITOR	0.010	50V	C357	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C201	QCSA1HJ-820	CER.CAPACITOR	82P	50V	C359	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C202	QCSA1HJ-101	CER.CAPACITOR	100P	50V	C360	QEK60JM-476	E.CAPACITOR	47	6.3V
C203	QCSA1HJ-200	CER.CAPACITOR	20P	50V	C361	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C204	QCYA1HK-103	CER.CAPACITOR	0.010	50V	C363	QEK60JM-107	E.CAPACITOR	100	6.3V
C205	QEK60JM-476	E.CAPACITOR	47	6.3V	C364	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C206	QEK61HM-474	E.CAPACITOR	0.47	50V	C365	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C222	QCYA1HK-103	CER.CAPACITOR	0.010	50V	C367	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C223	QCTA1CH-330	CER.CAPACITOR	33P	50V	C371	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C224	QCYA1HK-473	CER.CAPACITOR	0.047	50V	C401	QCYA1HK-102	CER.CAPACITOR	1000P	50V
C226	QCYA1HK-103	CER.CAPACITOR	0.010	50V	C402	QCYA1HK-102	CER.CAPACITOR	1000P	50V
C227	QEK60JM-476	E.CAPACITOR	47	6.3V	C403	QCYA1EK-563	CER.CAPACITOR	0.056	25V
C229	QETA1HM-106	E.CAPACITOR	10	50V	C404	QCSA1HJ-101	CER.CAPACITOR	100P	50V
C241	QEK60JM-476	E.CAPACITOR	47	6.3V	C405	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C242	QCYA1HK-103	CER.CAPACITOR	0.010	50V	C406	QEK61CM-106	E.CAPACITOR	10	16V
C243	QCSA1HJ-390	CER.CAPACITOR	39P	50V	C407	QEK61CM-106	E.CAPACITOR	10	16V
C244	QCSA1HJ-151	CER.CAPACITOR	150P	50V	C408	QEK60JM-107	E.CAPACITOR	100	6.3V
C245	QCSA1HJ-151	CER.CAPACITOR	150P	50V	C409	QCYA1HK-223	CER.CAPACITOR	0.022	50V
C246	QCYA1HK-103	CER.CAPACITOR	0.010	50V	C411	NCS21HJ-222	CER.CAPACITOR	2200P	50V
C247	QCSA1HJ-390	CER.CAPACITOR	39P	50V	C412	QCYA1EK-104	CER.CAPACITOR	0.10	25V
C248	QCYA1HK-103	CER.CAPACITOR	0.010	50V	C413	QCY81CK-105	CER.CAPACITOR	1.0	16V
C249	QCSA1HJ-821	CER.CAPACITOR	820P	50V	C414	QCYA1HK-102	CER.CAPACITOR	1000P	50V
C250	QCYA1HK-103	CER.CAPACITOR	0.010	50V	C415	QEK61CM-106	E.CAPACITOR	10	16V
C261	QEK60JM-476	E.CAPACITOR	47	6.3V	C416	QCYA1HK-102	CER.CAPACITOR	1000P	50V
C262	QCYA1HK-103	CER.CAPACITOR	0.010	50V	C417	QCSA1HJ-680	CER.CAPACITOR	68P	50V
C264	QCSA1HJ-470	CER.CAPACITOR	47P	50V	C451	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C265	QCTA1CH-330	CER.CAPACITOR	33P	50V	C452	QCC31CK-104	CER.CAPACITOR	0.10	16V
C266	QCSA1HJ-150	CER.CAPACITOR	15P	50V	C453	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C267	QCTA1CH-101	CER.CAPACITOR	100P	50V	C454	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C281	NCT03CH-510	CER.CAPACITOR	51P	50V	C455	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C282	QCYA1HK-103	CER.CAPACITOR	0.010	50V	C456	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C283	QCYA1HK-103	CER.CAPACITOR	0.010	50V	C458	QEK61CM-106	E.CAPACITOR	10	16V
C284	QCSA1HJ-121	CER.CAPACITOR	120P	50V	C459	QFV11HJ-563	S.M.F.CAPACITOR	0.056	50V
C285	QCSA1HJ-181	CER.CAPACITOR	180P	50V	C601	QCTA1CH-180	CER.CAPACITOR	18P	50V
C301	QCSA1HJ-101	CER.CAPACITOR	100P	50V	C602	QCTA1CH-180	CER.CAPACITOR	18P	50V
C302	QCSA1HJ-271	CER.CAPACITOR	270P	50V	C604	QEK61AM-107	E.CAPACITOR	100	10V
C303	QCVB1CN-103	CER.CAPACITOR	0.010	16V	C607	QCSA1HJ-471	CER.CAPACITOR	470P	50V
C304	QCYA1HK-103	CER.CAPACITOR	0.010	50V	C610	QEK61CM-106	E.CAPACITOR	10	16V
C305	QEK61HM-105	E.CAPACITOR	1.0	50V	C611	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C306	QCYA1HK-472	CER.CAPACITOR	4700P	50V	C613	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C307	QCTA1CH-101	CER.CAPACITOR	100P	50V	C614	QCYA1EK-473	CER.CAPACITOR	0.047	25V
C308	QCSA1HJ-221	CER.CAPACITOR	220P	50V	C616	QEK61CM-106	E.CAPACITOR	10	16V
C309	QEK61HM-335	E.CAPACITOR	3.3	50V	C617	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C310	QEK61HM-105	E.CAPACITOR	1.0	50V	C622	QEK60JM-107	E.CAPACITOR	100	6.3V
C311	QCYA1HK-103	CER.CAPACITOR	0.010	50V	C623	QCSA1HJ-102	CER.CAPACITOR	1000P	50V

Symbol No.	Part No.	Part Name	Description	Symbol No.	Part No.	Part Name	Description
C624	QCSA1HJ-101	CER.CAPACITOR	100P 50V	L301	PU48530-1R0	COIL	1.0 μ
C635	QCSA1HJ-470	CER.CAPACITOR	47P 50V	L302	PU48530-1R0	COIL	1.0 μ
C636	QCSA1HJ-470	CER.CAPACITOR	47P 50V	L303	PU58333-220	COIL	22 μ
C651	QCSA1HJ-102	CER.CAPACITOR	1000P 50V	L304	PU48530-100	COIL	10 μ
C652	QCYA1HK-473	CER.CAPACITOR	0.047 50V	L351	PELN0975-101	COIL	100 μ
C653	QCTA1CH-100	CER.CAPACITOR	10P 50V	L352	PELN0975-101	COIL	100 μ
C654	QCTA1CH-100	CER.CAPACITOR	10P 50V	L401	SCV0331-270	COIL	27 μ
C655	QCC31CK-104	CER.CAPACITOR	0.10 16V	L451	SCV0331-270	COIL	27 μ
C751	QCTA1CH-220	CER.CAPACITOR	22P 50V	L601	SCV0331-R22	COIL	0.22 μ
C752	QCYA1HK-102	CER.CAPACITOR	1000P 50V	L602	SCV0331-100	COIL	10 μ
C753	QCYA1EK-104	CER.CAPACITOR	0.10 25V	L603	PU48530-100	COIL	10 μ
C754	QCTA1CH-220	CER.CAPACITOR	22P 50V	L604	PU54223-100	COIL	10 μ
C755	QCTA1CH-220	CER.CAPACITOR	22P 50V	L605	PU54223-100	COIL	10 μ
C756	QCTA1CH-220	CER.CAPACITOR	22P 50V	L851	PELN0687	COIL	33 μ
C757	QCSA1HJ-470	CER.CAPACITOR	47P 50V	L852	PELN0687	COIL	33 μ
C758	QCSA1HJ-470	CER.CAPACITOR	47P 50V	L881	PU48530-101	COIL	100 μ
C759	QCSA1HJ-470	CER.CAPACITOR	47P 50V	△ CR801	PECA0962	CAPACITOR	
C760	QEK61HM-335	E.CAPACITOR	3.3 50V	X301	PEVB0442	CRYSTAL	
C761	QCSA1HJ-101	CER.CAPACITOR	100P 50V	X601	PEVB0422	CRYSTAL	32.768kHz
C762	QCSA1HJ-101	CER.CAPACITOR	100P 50V	CF601	PEVB0497	C RESONATOR	10.0MHz
C763	QCSA1HJ-101	CER.CAPACITOR	100P 50V	CF751	PEVB0340	C RESONATOR	4MHz
△ C802	OFZ9037-473	MM CAPACITOR	0.047	CN101	PU60910-2	CONNECTOR	2PIN
△ C809	QCZ9016-472	CER.CAPACITOR	4700P 250V	CN102	PU60910-7	CONNECTOR	7PIN
C810	QETM2DM-157	E.CAPACITOR	150 200V	CN103	PEMC1102-005	CONNECTOR	5PIN
C812	QETA1HM-105	E.CAPACITOR	1.0 50V	CN104	PU59555-5	CONNECTOR	5PIN
C814	QCZ0136-101	CER.CAPACITOR	100P	CN203	PEMC1055-013	CONNECTOR	13PIN
C816	QFN41HJ-103	MY.CAPACITOR	0.010 50V	CN204	PEMC1055-014	CONNECTOR	14PIN
C821	QFV11HJ-104	S.M.F.CAPACITOR	0.10 50V	CN205	PEMC0846-010	CONNECTOR	10PIN
C852	QEM91CM-827	E.CAPACITOR	820 16V	CN206	PEMC0846-010	CONNECTOR	10PIN
C853	QEM91AM-128	E.CAPACITOR	1200 10V	CN402	PEMC1102-004	CONNECTOR	4PIN
C854	QETC1HM-226	E.CAPACITOR	22 50V	CN601	PEMC1077	CONNECTOR	8PIN
C855	QEM91AM-107	E.CAPACITOR	100 10V	CN602	PU61434-1-1	CONNECTOR	5PIN
C856	QETA1AM-477	E.CAPACITOR	470 10V	CN603	PU60910-2	CONNECTOR	2PIN
C857	QETA1CM-477	E.CAPACITOR	470 16V	CN604	PU59555-12	CONNECTOR	12PIN
C858	QETA1HM-474	E.CAPACITOR	0.47 50V	CN605	PEMC1102-008	CONNECTOR	8PIN
C859	QFN41HJ-103	MY.CAPACITOR	0.010 50V	△ CN801	PU60250-2	CONNECTOR	2PIN
C861	QEM91EM-337	E.CAPACITOR	330 25V	CN802	PU59555-3	CONNECTOR	3PIN
C881	QETCOJM-107	E.CAPACITOR	100 6.3V	TP201	SQMX001-001	TEST POINT	
C882	QETA1HM-106	E.CAPACITOR	10 50V	TP202	SQMX001-001	TEST POINT	
C883	QETA1CM-107	E.CAPACITOR	100 16V	TP203	SQMX001-001	TEST POINT	
L101	PU58308-123	COIL		TP301	SQMX001-001	TEST POINT	
L201	PELN0975-101	COIL	100 μ	TP401	SQMX001-001	TEST POINT	
L202	PU48530-101	COIL	100 μ	TP692	SQMX001-001	TEST POINT	
L203	PU48530-220	COIL	22 μ	TP801	SQMX001-001	TEST POINT	
L221	PELN0975-101	COIL	100 μ	B451	QRSA08J-0R0	M.G.RESISTOR	0.1/10W
L222	PU48530-471	COIL	470 μ	B702	QRSA08J-0R0	M.G.RESISTOR	0.1/10W
L223	PU48530-222	COIL	2200 μ	△ CP401	ICP-N15	CIRCUIT PROTECTOR	
L241	PELN0975-101	COIL	100 μ	△ CP601	ICP-N25	CIRCUIT PROTECTOR	
L242	PU48530-470	COIL	47 μ				
L243	PU48530-330	COIL	33 μ				
L244	PU48530-101	COIL	100 μ				
L261	PU48530-102	COIL	1000 μ				
L262	PU48530-121	COIL	120 μ				
L263	PU48530-221	COIL	220 μ				
L264	PU48530-680	COIL	68 μ				
L281	PU48530-390	COIL	39 μ				
L282	PU48530-100	COIL	10 μ				
L283	PU48530-390	COIL	39 μ				
L284	PU48530-181	COIL	180 μ				

6.2 VIDEO UNIT BOARD ASSEMBLY LIST 05

PB10966A-01

05□□□□□

Symbol No.	Part No.	Part Name	Description
△ CP851	ICP-N20	CIRCUIT PROTECTOR	
△ CP852	ICP-N25	CIRCUIT PROTECTOR	
△ CP853	ICP-N20	CIRCUIT PROTECTOR	
△ FC801	SSV2497-001	FUSE HOLDER	
△ FC802	SSV2497-001	FUSE HOLDER	
JA1	PEMC1117	PIN JACK	LINE IN
JA2	PU61149-6	PIN JACK	MONITOR OUT
JA3	PEMC1116	PIN JACK	LINE OUT
JA4	PEMC1118	S JACK	S OUT
JA5	PEMC1118	S JACK	S IN
△ K801	SSV0939-001	FERRATE BEAD	
LF802	PU59707	LINE FILTER	
PS601	PU61433	REEL SENSOR	
PS602	PU61433	REEL SENSOR	
T101	PELN0860	OSC TRANS	
T102	PELN0861	OSC TRANS	
△ T801	PELN0426-04	SW. TRANS	
TB801	SQMX002-001	TERMINAL	
SPC1	PEME0947-01-02	SPACER	
SC1	SDSF3010Z	SCREW	M3×10
HS1	PRD49006	HEAT SINK	
BK1	PRD39014	TRANS BRACKET	
SC2	SDSF3008Z	SCREW	M3×8
SPC2	PRD30030-142	PAD	
SPC3	PRD30030-151	PAD	

Symbol No.	Part No.	Part Name	Description
IC1	JCP0054	I.C.(M)	JVC
IC2	M62353GP	I.C.(M)	MITSUBISHI
IC3	NJM431U	I.C.(M)	JRC
IC4	VC2076MP	I.C.(M)	JVC
IC6	93LC56/P	I.C.(M)	MICROCHIP TEC.
IC7	TC4S81F	I.C.(M)	TOSHIBA
Q1	2SA1576(QRS)	TRANSISTOR	ROHM
Q5	2SC4081(QRS)	TRANSISTOR	ROHM
Q6	2SA1576(QRS)	TRANSISTOR	ROHM
R2	NRSA63J-102	M.G.RESISTOR	1.0k 1/16W
R5	NRSA63J-182	M.G.RESISTOR	1.8k 1/16W
R6	NRSA63J-472	M.G.RESISTOR	4.7k 1/16W
R7	NRSA63J-272	M.G.RESISTOR	2.7k 1/16W
R8	NRSA63J-333	M.G.RESISTOR	33k 1/16W
R9	NRVA63D-822	M.F.RESISTOR	8.2k 1/16W
R10	NRVA63D-152	M.F.RESISTOR	1.5k 1/16W
R11	NRSA63J-222	M.G.RESISTOR	2.2k 1/16W
R12	NRVA63D-561	M.F.RESISTOR	560 1/16W
R13	NRSA63J-222	M.G.RESISTOR	2.2k 1/16W
R14	NRSA63J-821	M.G.RESISTOR	820 1/16W
R17	NRSA63J-391	M.G.RESISTOR	390 1/16W
R18	NRVA63D-391	M.F.RESISTOR	390 1/16W
R19	NRVA63D-102	M.F.RESISTOR	1.0k 1/16W
R22	NRSA63J-102	M.G.RESISTOR	1.0k 1/16W
R23	NRSA63J-102	M.G.RESISTOR	1.0k 1/16W
R24	NRSA63J-332	M.G.RESISTOR	3.3k 1/16W
R25	NRSA63J-332	M.G.RESISTOR	3.3k 1/16W
R26	NRSA63J-151	M.G.RESISTOR	150 1/16W
R27	NRSA63J-162	M.G.RESISTOR	1.6k 1/16W
R28	NRSA63J-391	M.G.RESISTOR	390 1/16W
R29	NRSA63J-122	M.G.RESISTOR	1.2k 1/16W
R30	NRVA63D-102	M.F.RESISTOR	1.0k 1/16W
R31	NRVA63D-471	M.F.RESISTOR	470 1/16W
R32	NRVA63D-102	M.F.RESISTOR	1.0k 1/16W
R33	NRVA63D-152	M.F.RESISTOR	1.5k 1/16W
R34	NRVA63D-332	M.F.RESISTOR	3.3k 1/16W
R35	NRVA63D-332	M.F.RESISTOR	3.3k 1/16W
R37	NRSA63J-0R0	M.G.RESISTOR	0 1/16W
R46	NRSA63J-0R0	M.G.RESISTOR	0 1/16W
R47	NRSA63J-102	M.G.RESISTOR	1.0k 1/16W
R48	NRVA63D-243	M.F.RESISTOR	24k 1/16W
R49	NRSA63J-0R0	M.G.RESISTOR	0 1/16W
R50	NRSA63J-102	M.G.RESISTOR	1.0k 1/16W
R51	NRSA63J-102	M.G.RESISTOR	1.0k 1/16W
R52	NRSA63J-0R0	M.G.RESISTOR	0 1/16W
R53	NRSA63J-0R0	M.G.RESISTOR	0 1/16W
R54	NRSA63J-0R0	M.G.RESISTOR	0 1/16W
R55	NRVA63D-272	M.F.RESISTOR	2.7k 1/16W
R56	NRVA63D-682	M.F.RESISTOR	6.8k 1/16W
R57	NRVA63D-162	M.F.RESISTOR	1.6k 1/16W
R58	NRVA63D-682	M.F.RESISTOR	6.8k 1/16W
R59	NRSA63J-0R0	M.G.RESISTOR	0 1/16W
R60	NRSA63J-102	M.G.RESISTOR	1.0k 1/16W
R61	NRSA63J-0R0	M.G.RESISTOR	0 1/16W
R63	NRSA63J-103	M.G.RESISTOR	10k 1/16W
R64	NRSA63J-475	M.G.RESISTOR	4.7M 1/16W
R65	NRSA63J-0R0	M.G.RESISTOR	0 1/16W

Symbol No.	Part No.	Part Name	Description			Symbol No.	Part No.	Part Name	Description
R67	NRSA63J-0R0	M.G.RESISTOR	0	1/16W		C59	NCS31HJ-181	CER.CAPACITOR	180p 50V
R68	NRSA63J-0R0	M.G.RESISTOR	0	1/16W		C60	NCS31HJ-101	CER.CAPACITOR	100p 50V
R69	NRSA63J-101	M.G.RESISTOR	100	1/16W		C61	NCS31HG-271	CER.CAPACITOR	270p 50V
R73	NRSA63J-334	M.G.RESISTOR	330k	1/16W		C62	NCS31HG-820	CER.CAPACITOR	82p 50V
R75	NRSA63J-101	M.G.RESISTOR	100	1/16W		C63	NCS31HG-221	CER.CAPACITOR	220p 50V
R79	NRSA63J-0R0	M.G.RESISTOR	0	1/16W		C64	NCS31HG-301	CER.CAPACITOR	300p 50V
R85	NRSA63J-472	M.G.RESISTOR	4.7k	1/16W		C65	NCS31HG-301	CER.CAPACITOR	300p 50V
C2	NCF31HZ-103	CER.CAPACITOR	0.010	50V		C66	NCB31HK-103	CER.CAPACITOR	0.010 50V
C5	QETC1HM-105	E.CAPACITOR	1.0	50V		C67	QETC0JM-476	E.CAPACITOR	47 6.3V
C7	QETC1HM-104	E.CAPACITOR	0.10	50V		C69	NCB31HK-103	CER.CAPACITOR	0.010 50V
C8	NCT08CH-680	CER.CAPACITOR	68p	50V		C70	QETC1HM-225	E.CAPACITOR	2.2 50V
C10	NCF31EZ-104	CER.CAPACITOR	0.10	25V		C71	QETC1HM-225	E.CAPACITOR	2.2 50V
C11	NCB31HK-103	CER.CAPACITOR	0.010	50V		C85	NCF31HZ-103	CER.CAPACITOR	0.010 50V
C12	QETC1EM-106	E.CAPACITOR	10	25V		C86	NCF31HZ-103	CER.CAPACITOR	0.010 50V
C13	QETC1HM-225	E.CAPACITOR	2.2	50V		C87	NCF31HZ-103	CER.CAPACITOR	0.010 50V
C14	NCF31EZ-104	CER.CAPACITOR	0.10	25V		C88	NCF31HZ-103	CER.CAPACITOR	0.010 50V
C15	QETC1EM-475	E.CAPACITOR	4.7	25V		C89	NCF31HZ-103	CER.CAPACITOR	0.010 50V
C16	NCB31EK-153	CER.CAPACITOR	0.015	25V		C99	NCF31HZ-103	CER.CAPACITOR	0.010 50V
C18	QETC1HM-105	E.CAPACITOR	1.0	50V		C102	NCB31EK-103	CER.CAPACITOR	0.010 25V
C19	QETC0JM-476	E.CAPACITOR	47	6.3V		C104	QETC1HM-224	E.CAPACITOR	0.22 50V
C20	NCB31HK-103	CER.CAPACITOR	0.010	50V		C106	NCT08CH-121	CER.CAPACITOR	120p 50V
C21	NCF31HZ-103	CER.CAPACITOR	0.010	50V		L2	PU48530-271	COIL	270μ
C22	NCT08CH-331	CER.CAPACITOR	330p	50V		L4	PU48530-331	COIL	330μ
C23	QCYA1EK-104	CER.CAPACITOR	0.10	25V		L5	PU48530-100	COIL	10μ
C25	NCF31HZ-103	CER.CAPACITOR	0.010	50V		L6	PU48530-470	COIL	47μ
C26	NCF31HZ-103	CER.CAPACITOR	0.010	50V		L7	PU48530-101	COIL	100μ
C27	NCF31HZ-103	CER.CAPACITOR	0.010	50V		L8	PU48530-101	COIL	100μ
C28	NCB31HK-103	CER.CAPACITOR	0.010	50V		LC1	PELN0937	LC TRAP	
C29	QETC0JM-476	E.CAPACITOR	47	6.3V		LC3	PELN1149	EQUALIZER	
C30	NCB31EK-103	CER.CAPACITOR	0.010	25V		LC4	PELN0939	LC TRAP	
C31	NCT08CH-161	CER.CAPACITOR	160p	50V		X1	PEVB0549	CRYSTAL	
C32	NCS31HJ-120	CER.CAPACITOR	12p	50V		K1	QRSA08J-0R0	RESISTOR	0 1/10W
C33	QETC1HM-104	E.CAPACITOR	0.10	50V		CN1	PEMC0919-130	CONNECTOR	30PIN
C35	NCF31HZ-103	CER.CAPACITOR	0.010	50V		CN2	PEMC0919-130	CONNECTOR	30PIN
C36	NCF31HZ-103	CER.CAPACITOR	0.010	50V					
C37	QETC1HM-474	E.CAPACITOR	0.47	50V					
C38	QETC1HM-104	E.CAPACITOR	0.10	50V					
C39	QETC1HM-474	E.CAPACITOR	0.47	50V					
C40	NCF31HZ-103	CER.CAPACITOR	0.010	50V					
C41	QETC1CM-106	E.CAPACITOR	10	16V					
C42	QETC1CM-106	E.CAPACITOR	10	16V					
C43	QC31EK-473	CER.CAPACITOR	0.047	25V					
C44	NCB31HK-103	CER.CAPACITOR	0.010	50V					
C45	QETC1CM-226	E.CAPACITOR	22	16V					
C46	NCS31HJ-470	CER.CAPACITOR	47p	50V					
C47	QETC1HM-474	E.CAPACITOR	0.47	50V					
C48	QETC1CM-226	E.CAPACITOR	22	16V					
C49	QETC1HM-225	E.CAPACITOR	2.2	50V					
C50	NCF31EZ-104	CER.CAPACITOR	0.10	25V					
C51	NCB31HK-103	CER.CAPACITOR	0.010	50V					
C52	NCB31HK-103	CER.CAPACITOR	0.010	50V					
C53	QETC0JM-476	E.CAPACITOR	47	6.3V					
C54	NCS31HJ-101	CER.CAPACITOR	100p	50V					
C55	NCS31HJ-101	CER.CAPACITOR	100p	50V					
C56	QETC1EM-475	E.CAPACITOR	4.7	25V					
C57	NCS31HJ-301	CER.CAPACITOR	300p	50V					
C58	NCS31HJ-301	CER.CAPACITOR	300p	50V					

6.3 A/C HEAD BOARD ASSEMBLY LIST 1 2

PB40068A-01

1 2 3 4 5 6 7 8 9 10

Symbol No.	Part No.	Part Name	Description
CN1	PU60910-107	CONNECTOR	7PIN

6.4 DISPLAY BOARD ASSEMBLY LIST 2|1
SLK1037-01-00A 2|1□□□□□□

Symbol No.	Part No.	Part Name	Description
IC1	UPD16311GC(P)	I.C.(M)	NEC
IC2	GP1U581X	I.C.(M)	
D2	1SS132	DIODE	ROHM
D3	1SS132	DIODE	ROHM
D8	SLR-342MG3F	LED	SHARP
D10	SLR-342MG3F	LED	SHARP
D11	RD4.7ES-T1B2	ZENER DIODE	NEC
D31	11ES2	DIODE	NIPPON INTER
R1	QRD161J-333	C.RESISTOR	33K 1/6W
R2	QRD161J-333	C.RESISTOR	33K 1/6W
R3	QRD161J-333	C.RESISTOR	33K 1/6W
R4	QRD161J-333	C.RESISTOR	33K 1/6W
R5	QRD161J-272	C.RESISTOR	2.7K 1/6W
R6	QRD161J-272	C.RESISTOR	2.7K 1/6W
R7	QRD161J-561	C.RESISTOR	560 1/6W
R8	QRD161J-513	C.RESISTOR	51K 1/6W
R9	QRD161J-103	C.RESISTOR	10K 1/6W
R10	QRD161J-103	C.RESISTOR	10K 1/6W
R11	QRD161J-331	C.RESISTOR	330 1/6W
R12	QRD161J-331	C.RESISTOR	330 1/6W
R13	QRD161J-333	C.RESISTOR	33K 1/6W
R15	QRD161J-103	C.RESISTOR	10K 1/6W
R16	QRD161J-472	C.RESISTOR	4.7K 1/6W
RA1	QRB045J-333	R.NETWORK	33K
C1	QEK60JM-476	E.CAPACITOR	47 6.3V
C2	QCFB1HZ-104	CER.CAPACITOR	0.10 50V
C3	QEK61HM-106	E.CAPACITOR	10 50V
C4	QCSB1HJ-330	CER.CAPACITOR	33P 50V
C5	QCBB1HJ-101	CER.CAPACITOR	100P 50V
C6	QEK60JM-227	E.CAPACITOR	220 6.3V
C10	QCFB1HZ-473	CER.CAPACITOR	0.047 50V
C11	QCFB1HZ-473	CER.CAPACITOR	0.047 50V
L1	PU48530-101	COIL	100μ
S5	PU60392-2-2	TACT SW	PAUSE
S6	PU60392-2-2	TACT SW	REC
S7	PU60392-2-2	TACT SW	PLAY
S8	PU60392-2-2	TACT SW	STOP
S25	PU60392-2-2	TACT SW	A.DUB
S27	PU60392-2-2	TACT SW	C.RESET
CN3	PEMC1102-108	CONNECTOR	8PIN
CN4	PEMC0889-013	CONNECTOR	13PIN
CN5	PEMC1102-105	CONNECTOR	5PIN
TP1	SQMX001-001	TEST POINT	
TP2	SQMX001-001	TEST POINT	
FDP1	PEDP0106-03	FDP	

Symbol No.	Part No.	Part Name	Description
HD1	PQ34668	FDP HOLDER(L)	
HD2	PQ34669	FDP HOLDER(R)	
HD3	PQM30038-6	LED HOLDER	FOR D8,D10

6.5 REC/SAFETY BOARD ASSEMBLY LIST 3|2
SLK1037-04-00A 3|2□□□□□□

Symbol No.	Part No.	Part Name	Description
S35	PESW0589	SWITCH	REC SAFE

6.6 CASSETTE. SW BOARD ASSEMBLY LIST 3|3
SLK1037-03-00A 3|3□□□□□□

Symbol No.	Part No.	Part Name	Description
S36	PU61320	SWITCH	CASS
S37	PU61320	SWITCH	S CASS

6.7 SW/JACK BOARD ASSEMBLY LIST 3 6
SLK1037-02-00A 3 6 □□□□□

Symbol No.	Part No.	Part Name	Description
D23	ISS132	DIODE	ROHM
D24	ISS132	DIODE	ROHM
D25	ISS132	DIODE	ROHM
D31	SLR-342VC3F	LED	SHARP
D32	SLR-342DC3F	LED	SHARP
R1	PGZ02355	V RESISTOR	REC VR (L)
R2	PGZ02355	V RESISTOR	REC VR (R)
R3	PERE0514	V RESISTOR	HP VR
R18	QRD161J-331	C.RESISTOR	330 1/6W
R19	QRD161J-331	C.RESISTOR	330 1/6W
S9	PU60392-2-2	TACT SW	SELECT
S10	PU60392-2-2	TACT SW	SET
S11	PU60392-2-2	TACT SW	POWER
S12	PU60392-2-2	TACT SW	EJECT
S13	PU60392-2-2	TACT SW	HiFi SEL
S14	PU60392-2-2	TACT SW	A/O SEL
S15	PU60392-2-2	TACT SW	R.A. EDIT
S16	PU60392-2-2	TACT SW	MENU
S17	PGZ02224	SLIDE SWITCH	Y/C/LINE
S18	PGZ02225	SLIDE SWITCH	REMOTE
CN1	PEMC1102-105	CONNECTOR	5PIN
CN2	PEMC0825-013	CONNECTOR	13PIN
CN3	SSV0993-06R2	CONNECTOR	6PIN
JA1	PGZ02223	MINI JACK	HEAD PHONE
HD1	PQM30038-1-2	LED HOLDER	

6.8 PRE/REC BOARD ASSEMBLY LIST 4 3
PB10965D-03 4 3 □□□□□

Symbol No.	Part No.	Part Name	Description
IC1	JCP0047-WE	I.C.(M)	JVC
IC201	AN3380NK	I.C.(M)	MATSUSHITA
Q1	2SC4081(QRS)	TRANSISTOR	ROHM
Q2	2SA1576(QR)	TRANSISTOR	ROHM
Q3	2SC4081(QRS)	TRANSISTOR	ROHM
Q4	2SC4081(QRS)	TRANSISTOR	ROHM
Q5	2SA1576(QR)	TRANSISTOR	ROHM
Q6	2SA1576(QR)	TRANSISTOR	ROHM
Q18	DTC143EU	TRANSISTOR	ROHM
Q19	2SC4081(QRS)	TRANSISTOR	ROHM
Q20	2SA1576(QR)	TRANSISTOR	ROHM
Q21	2SC4081(QRS)	TRANSISTOR	ROHM
Q101	2SC4081(QRS)	TRANSISTOR	ROHM
Q102	2SC4081(QRS)	TRANSISTOR	ROHM
Q103	2SC4081(QRS)	TRANSISTOR	ROHM
Q104	DTA144EU	TRANSISTOR	ROHM
Q105	2SC4081(QRS)	TRANSISTOR	ROHM
Q106	DTA124EU	TRANSISTOR	ROHM
Q107	DTC124EU	TRANSISTOR	ROHM
Q108	DTC144WU	TRANSISTOR	ROHM
Q109	DTC124EU	TRANSISTOR	ROHM
Q110	2SA1576(QR)	TRANSISTOR	ROHM
Q111	2SC4081(QRS)	TRANSISTOR	ROHM
Q112	2SA1576(QR)	TRANSISTOR	ROHM
Q113	2SC4081(QRS)	TRANSISTOR	ROHM
Q114	2SA1576(QR)	TRANSISTOR	ROHM
Q115	2SC4081(QRS)	TRANSISTOR	ROHM
Q116	2SC4081(QRS)	TRANSISTOR	ROHM
Q119	2SC4081(QRS)	TRANSISTOR	ROHM
Q120	DTC124EU	TRANSISTOR	ROHM
Q121	DTA144WU	TRANSISTOR	ROHM
Q201	DTC124TU	TRANSISTOR	ROHM
Q202	DTC124TU	TRANSISTOR	ROHM
Q203	DTC124EU	TRANSISTOR	ROHM
Q205	DTA114EU	TRANSISTOR	ROHM
Q206	DTC114WU	TRANSISTOR	ROHM
Q207	DTC124EU	TRANSISTOR	ROHM
Q210	DTC144WU	TRANSISTOR	ROHM
Q211	DTA114EU	TRANSISTOR	ROHM
Q301	2SA933S(Q)	TRANSISTOR	ROHM
Q302	2SA933S(Q)	TRANSISTOR	ROHM
Q303	DTC124EU	TRANSISTOR	ROHM
Q304	2SA933S(Q)	TRANSISTOR	ROHM
D2	ISS355	DIODE	ROHM
D7	ISS355	DIODE	ROHM
D101	DAN202U	DIODE	ROHM
D102	ISS355	DIODE	ROHM
D103	DAN202U	DIODE	ROHM
D203	ISS355	DIODE	ROHM
D204	ISS355	DIODE	ROHM
R3	QRSA08J-271	M.G.RESISTOR	270 1/10W
R4	QRSA08J-220	M.G.RESISTOR	22 1/10W
R5	QRSA08J-200	M.G.RESISTOR	20 1/10W
R6	QRSA08J-271	M.G.RESISTOR	270 1/10W
R7	QRSA08J-330	M.G.RESISTOR	33 1/10W

[PRE/REC]

Symbol No.	Part No.	Part Name	Description		Symbol No.	Part No.	Part Name	Description	
R8	QRSA08J-360	M.G.RESISTOR	36	1/10W	R129	QRSA08J-511	M.G.RESISTOR	510	1/10W
R9	QRSA08J-392	M.G.RESISTOR	3.9k	1/10W	R130	QRSA08J-103	M.G.RESISTOR	10k	1/10W
R10	QRSA08J-122	M.G.RESISTOR	1.2k	1/10W	R131	QRSA08J-222	M.G.RESISTOR	2.2k	1/10W
R11	QRSA08J-392	M.G.RESISTOR	3.9k	1/10W	R132	QRSA08J-273	M.G.RESISTOR	27k	1/10W
R12	NVP1311-153	V RESISTOR	15k	REC FM LEVEL	R133	QRSA08J-392	M.G.RESISTOR	3.9k	1/10W
R13	QRSA08J-273	M.G.RESISTOR	27k	1/10W	R134	QRSA08J-561	M.G.RESISTOR	560	1/10W
R14	QRSA08J-332	M.G.RESISTOR	3.3k	1/10W	R135	QRSA08J-152	M.G.RESISTOR	1.5k	1/10W
R15	QRSA08J-301	M.G.RESISTOR	300	1/10W	R136	QRSA08J-561	M.G.RESISTOR	560	1/10W
R16	QRSA08J-151	M.G.RESISTOR	150	1/10W	R137	QRSA08J-331	M.G.RESISTOR	330	1/10W
R17	QRSA08J-152	M.G.RESISTOR	1.5k	1/10W	R138	QRSA08J-822	M.G.RESISTOR	8.2k	1/10W
R18	QRSA08J-102	M.G.RESISTOR	1.0k	1/10W	R139	QRSA08J-391	M.G.RESISTOR	390	1/10W
R19	NRVA62D-203	M.F.RESISTOR	20k	1/16W	R140	QRSA08J-302	M.G.RESISTOR	3.0k	1/10W
R20	QRSA08J-821	M.G.RESISTOR	820	1/10W	R141	QRSA08J-562	M.G.RESISTOR	5.6k	1/10W
R21	QRSA08J-222	M.G.RESISTOR	2.2k	1/10W	R142	QRSA08J-392	M.G.RESISTOR	3.9k	1/10W
R22	QRSA08J-472	M.G.RESISTOR	4.7k	1/10W	R151	QRSA08J-102	M.G.RESISTOR	1.0k	1/10W
R23	QRSA08J-104	M.G.RESISTOR	100k	1/10W	R152	QRSA08J-102	M.G.RESISTOR	1.0k	1/10W
R24	QRSA08J-472	M.G.RESISTOR	4.7k	1/10W	R201	QRSA08J-273	M.G.RESISTOR	27k	1/10W
R25	QRSA08J-562	M.G.RESISTOR	5.6k	1/10W	R202	QRSA08J-101	M.G.RESISTOR	100	1/10W
R26	QRSA08J-512	M.G.RESISTOR	5.1k	1/10W	R203	QRSA08J-101	M.G.RESISTOR	100	1/10W
R27	QRSA08J-103	M.G.RESISTOR	10k	1/10W	R204	QRSA08J-274	M.G.RESISTOR	270k	1/10W
R28	QRSA08J-822	M.G.RESISTOR	8.2k	1/10W	R205	QRSA08J-102	M.G.RESISTOR	1.0k	1/10W
R30	QRSA08J-681	M.G.RESISTOR	680	1/10W	R209	QRSA08J-332	M.G.RESISTOR	3.3k	1/10W
R31	QRSA08J-102	M.G.RESISTOR	1.0k	1/10W	R214	QRSA08J-560	M.G.RESISTOR	56	1/10W
R32	QRSA08J-332	M.G.RESISTOR	3.3k	1/10W	R215	QRSA08J-560	M.G.RESISTOR	56	1/10W
R33	QRSA08J-332	M.G.RESISTOR	3.3k	1/10W	R216	QVPA603-331	V RESISTOR	330	A REC FM LEVEL
R34	QRSA08J-301	M.G.RESISTOR	300	1/10W	R217	QRSA08J-153	M.G.RESISTOR	15k	1/10W
R35	QRSA08J-222	M.G.RESISTOR	2.2k	1/10W	R218	QRSA08J-332	M.G.RESISTOR	3.3k	1/10W
R36	QRSA08J-222	M.G.RESISTOR	2.2k	1/10W	R219	QRSA08J-222	M.G.RESISTOR	2.2k	1/10W
R44	QRSA08J-101	M.G.RESISTOR	100	1/10W	R220	QRSA08J-332	M.G.RESISTOR	3.3k	1/10W
R48	QRSA08J-681	M.G.RESISTOR	680	1/10W	R301	QRSA08J-221	M.G.RESISTOR	220	1/10W
R63	QRSA08J-751	M.G.RESISTOR	750	1/10W	R302	QRSA08J-821	M.G.RESISTOR	820	1/10W
R101	QRSA08J-152	M.G.RESISTOR	1.5k	1/10W	R303	QRSA08J-681	M.G.RESISTOR	680	1/10W
R102	QRSA08J-471	M.G.RESISTOR	470	1/10W	R304	QRSA08J-473	M.G.RESISTOR	47k	1/10W
R103	QRSA08J-183	M.G.RESISTOR	18k	1/10W	R305	QRSA08J-683	M.G.RESISTOR	68k	1/10W
R104	QRSA08J-392	M.G.RESISTOR	3.9k	1/10W	R306	QRSA08J-393	M.G.RESISTOR	39k	1/10W
R105	QRSA08J-183	M.G.RESISTOR	18k	1/10W	R307	QRSA08J-472	M.G.RESISTOR	4.7k	1/10W
R106	QRSA08J-392	M.G.RESISTOR	3.9k	1/10W	R308	QRSA08J-473	M.G.RESISTOR	47k	1/10W
R107	QRSA08J-102	M.G.RESISTOR	1.0k	1/10W	C1	QCFA1CZ-105	CER.CAPACITOR	1.0	16V
R108	QRSA08J-102	M.G.RESISTOR	1.0k	1/10W	C2	QCFA1HZ-103	CER.CAPACITOR	0.010	50V
R109	QRSA08J-681	M.G.RESISTOR	680	1/10W	C3	QE60JM-107	E.CAPACITOR	100	6.3V
R110	QRSA08J-102	M.G.RESISTOR	1.0k	1/10W	C4	QCFA1HZ-103	CER.CAPACITOR	0.010	50V
R111	QRSA08J-102	M.G.RESISTOR	1.0k	1/10W	C5	QCFA1HZ-103	CER.CAPACITOR	0.010	50V
R112	QRSA08J-681	M.G.RESISTOR	680	1/10W	C12	QCTA1CH-100	CER.CAPACITOR	10p	
R113	QVPA603-222	V RESISTOR	2.2k	S SP VIDEO EQ	C13	QCFA1EZ-104	CER.CAPACITOR	0.10	25V
R114	QVPA603-222	V RESISTOR	2.2k	S EP VIDEO EQ	C14	QCYA1HK-473	CER.CAPACITOR	0.047	50V
R115	QRSA08J-471	M.G.RESISTOR	470	1/10W	C15	QCYA1HK-223	CER.CAPACITOR	0.022	50V
R116	QRSA08J-103	M.G.RESISTOR	10k	1/10W	C18	QCYA1HK-223	CER.CAPACITOR	0.022	50V
R117	QRSA08J-752	M.G.RESISTOR	7.5k	1/10W	C19	QCYA1HK-473	CER.CAPACITOR	0.047	50V
R118	QRSA08J-333	M.G.RESISTOR	33k	1/10W	C20	QCTA1CH-100	CER.CAPACITOR	10p	
R119	QRSA08J-562	M.G.RESISTOR	5.6k	1/10W	C21	QCFA1EZ-104	CER.CAPACITOR	0.10	25V
R120	QRSA08J-473	M.G.RESISTOR	47k	1/10W	C22	QCFA1EZ-104	CER.CAPACITOR	0.10	25V
R121	QRSA08J-561	M.G.RESISTOR	560	1/10W	C23	QCFA1EZ-104	CER.CAPACITOR	0.10	25V
R122	QRSA08J-821	M.G.RESISTOR	820	1/10W	C26	QCFA1EZ-104	CER.CAPACITOR	0.10	25V
R123	QRSA08J-821	M.G.RESISTOR	820	1/10W	C27	QCFA1EZ-104	CER.CAPACITOR	0.10	25V
R124	QRSA08J-822	M.G.RESISTOR	8.2k	1/10W	C28	QE60JM-476	E.CAPACITOR	47	6.3V
R125	QRSA08J-333	M.G.RESISTOR	33k	1/10W	C29	OCFA1HZ-103	CER.CAPACITOR	0.010	50V
R126	QRSA08J-102	M.G.RESISTOR	1.0k	1/10W	C30	OCFA1EZ-104	CER.CAPACITOR	0.10	25V
R127	QRSA08J-471	M.G.RESISTOR	470	1/10W					
R128	QRSA08J-471	M.G.RESISTOR	470	1/10W					

Symbol No.	Part No.	Part Name	Description		Symbol No.	Part No.	Part Name	Description	
C31	QCFA1HZ-103	CER.CAPACITOR	0.010	50V	C208	QCSA1HJ-391	CER.CAPACITOR	390p	50V
C32	QCYA1HJ-222	CER.CAPACITOR	2200p	50V	C209	QEK60JM-107	E.CAPACITOR	100	6.3V
C33	QCYA1HJ-222	CER.CAPACITOR	2200p	50V	C210	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C34	QCFA1HZ-103	CER.CAPACITOR	0.010	50V	C211	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C35	QCFA1HZ-103	CER.CAPACITOR	0.010	50V	C213	QCTA1CH-331	CER.CAPACITOR	330p	
C36	QCFA1CZ-105	CER.CAPACITOR	1.0	16V	C214	QCSA1HJ-330	CER.CAPACITOR	33p	50V
C37	QCSA1HJ-391	CER.CAPACITOR	390p	50V	C216	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C39	QCSA1HJ-151	CER.CAPACITOR	150p	50V	C218	QCSA1HJ-102	CER.CAPACITOR	1000p	50V
C40	QCFA1CZ-474	CER.CAPACITOR	0.47	16V	C219	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C41	QCFA1HZ-103	CER.CAPACITOR	0.010	50V	C220	QEK61AM-476	E.CAPACITOR	47	10V
C42	QEKF0JM-476	E.CAPACITOR	47	6.3V	C221	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C43	QCFA1HZ-103	CER.CAPACITOR	0.010	50V	C224	QCFA1CZ-224	CER.CAPACITOR	0.22	16V
C44	QCFA1HZ-103	CER.CAPACITOR	0.010	50V	C225	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C45	QEKF1CM-476	E.CAPACITOR	47	16V	C226	QCTA1CH-101	CER.CAPACITOR	100p	
C46	QCSA1HJ-331	CER.CAPACITOR	330p	50V	C301	QCYA1HK-223	CER.CAPACITOR	0.022	50V
C47	QCSA1HJ-101	CER.CAPACITOR	100p	50V	C302	QCTA1CH-151	CER.CAPACITOR	150p	
C49	QCSA1HJ-121	CER.CAPACITOR	120p	50V	C303	QCTA1CH-180	CER.CAPACITOR	18p	
C56	QCSA1HJ-390	CER.CAPACITOR	39p	50V	C304	QCTA1CH-220	CER.CAPACITOR	22p	
C59	QCSA1HJ-361	CER.CAPACITOR	360p	50V	C305	QCTA1CH-102	CER.CAPACITOR	1000p	
C68	QCFA1HZ-103	CER.CAPACITOR	0.010	50V	C306	QCTA1CH-220	CER.CAPACITOR	22p	
C69	QCFA1HZ-103	CER.CAPACITOR	0.010	50V	C307	QEKF1CM-106	E.CAPACITOR	10	16V
C70	QCTA1CH-151	CER.CAPACITOR	150p		C308	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C74	QCFA1CZ-105	CER.CAPACITOR	1.0	16V	L1	PELN0975-101	COIL	100μ	
C101	QCFA1HZ-103	CER.CAPACITOR	0.010	50V	L2	PELN0975-101	COIL	100μ	
C102	QCFA1HZ-103	CER.CAPACITOR	0.010	50V	L3	PU59988-151	COIL	150μ	
C103	QCSA1HJ-101	CER.CAPACITOR	100p	50V	L4	PU59988-221	COIL	220μ	
C104	QCTA1CH-101	CER.CAPACITOR	100p		L5	PELN0975-101	COIL	100μ	
C105	QCSA1HJ-680	CER.CAPACITOR	68p	50V	L7	PU59988-180	COIL	18μ	
C106	QCFA1HZ-103	CER.CAPACITOR	0.010	50V	L12	PELN0975-101	COIL	100μ	
C107	QCSA1HJ-390	CER.CAPACITOR	39p	50V	L101	PU59988-560	COIL	56μ	
C108	QCSA1HJ-390	CER.CAPACITOR	39p	50V	L102	PU59988-150	COIL	15μ	
C109	QCFA1HZ-103	CER.CAPACITOR	0.010	50V	L103	PU59988-270	COIL	27μ	
C110	QCFA1HZ-103	CER.CAPACITOR	0.010	50V	L104	PU59988-270	COIL	27μ	
C111	QCSA1HJ-330	CER.CAPACITOR	33p	50V	L105	PU59988-560	COIL	56μ	
C112	QCFA1HZ-103	CER.CAPACITOR	0.010	50V	L106	PU59988-220	COIL	22μ	
C113	QCSA1HJ-470	CER.CAPACITOR	47p	50V	L107	PU59988-390	COIL	39μ	
C114	QCSA1HJ-150	CER.CAPACITOR	15p	50V	L108	PU59988-221	COIL	220μ	
C115	QCSA1HJ-330	CER.CAPACITOR	33p	50V	L109	PU59988-100	COIL	10μ	
C116	QCSA1HJ-180	CER.CAPACITOR	18p	50V	L112	PELN0975-101	COIL	100μ	
C117	QCSA1HJ-180	CER.CAPACITOR	18p	50V	L201	PELN0975-101	COIL	100μ	
C118	QCFA1HZ-103	CER.CAPACITOR	0.010	50V	L202	PELN0530-221	COIL	220μ	
C119	QCSA1HJ-220	CER.CAPACITOR	22p	50V	L301	PU59988-150	COIL	15μ	
C120	QCSA1HJ-150	CER.CAPACITOR	15p	50V	L302	PELN0975-101	COIL	100μ	
C122	QCSA1HJ-180	CER.CAPACITOR	18p	50V	SLD1	PQ21805	SHIELD FLAME		
C123	QCSA1HJ-390	CER.CAPACITOR	39p	50V	TP	PU54983	TEST PIN		
C124	QCSA1HJ-150	CER.CAPACITOR	15p	50V	CN1	PU59973-11	CONNECTOR	11PIN	
C125	QCSA1HJ-820	CER.CAPACITOR	82p	50V	CN2	PEMC1056-114	CONNECTOR	14PIN	
C126	QCSA1HJ-120	CER.CAPACITOR	12p	50V	CN3	PEMC1056-113	CONNECTOR	13PIN	
C127	QCFA1HZ-103	CER.CAPACITOR	0.010	50V					
C128	QEKF1CM-476	E.CAPACITOR	47	16V					
C129	QCFA1HZ-103	CER.CAPACITOR	0.010	50V					
C133	QCFA1HZ-103	CER.CAPACITOR	0.010	50V					
C134	QCTA1CH-150	CER.CAPACITOR	15p						
C201	QCFA1EZ-104	CER.CAPACITOR	0.10	25V					
C202	QCSA1HJ-391	CER.CAPACITOR	390p	50V					
C203	QCSA1HJ-561	CER.CAPACITOR	560p	50V					
C204	QCSA1HJ-102	CER.CAPACITOR	1000p	50V					
C205	QCSA1HJ-561	CER.CAPACITOR	560p	50V					
C206	QCSA1HJ-102	CER.CAPACITOR	1000p	50V					
C207	QCFA1CZ-224	CER.CAPACITOR	0.22	16V					

6.9 SEPA/HP AMP BOARD ASSEMBLY LIST 4|9
SLK1037-05-00A 4|9 □□□□□

Symbol No.	Part No.	Part Name	Description	
IC101	M51132L	I.C.(M)	MITSUBISHI	
IC102	BA15218	I.C.(M)	ROHM	
Q101	2SD1468S(RS)	TRANSISTOR	ROHM	
Q102	2SD1468S(RS)	TRANSISTOR	ROHM	
R101	QRD161J-473	C.RESISTOR	47K	1/6W
R102	QRD161J-473	C.RESISTOR	47K	1/6W
R103	QRD161J-273	C.RESISTOR	27K	1/6W
R104	QRD161J-273	C.RESISTOR	27K	1/6W
R105	QRD161J-473	C.RESISTOR	47K	1/6W
R106	QRD161J-473	C.RESISTOR	47K	1/6W
R107	QRD161J-473	C.RESISTOR	47K	1/6W
R108	QRD161J-473	C.RESISTOR	47K	1/6W
R109	QRD161J-152	C.RESISTOR	1.5K	1/6W
R110	QRD161J-152	C.RESISTOR	1.5K	1/6W
R111	QRD161J-152	C.RESISTOR	1.5K	1/6W
R112	QRD161J-152	C.RESISTOR	1.5K	1/6W
R113	QRD161J-330	C.RESISTOR	33	1/6W
R114	QRD161J-330	C.RESISTOR	33	1/6W
R115	QRD161J-391	C.RESISTOR	390	1/6W
R116	QRD161J-152	C.RESISTOR	1.5K	1/6W
R117	QRD161J-152	C.RESISTOR	1.5K	1/6W
C101	QETA1CM-106	E.CAPACITOR	10	16V
C102	QETA1CM-106	E.CAPACITOR	10	16V
C103	QETA1CM-226	E.CAPACITOR	22	16V
C104	QETA1CM-476	E.CAPACITOR	47	16V
C105	QETA1CM-106	E.CAPACITOR	10	16V
C106	QETA1CM-106	E.CAPACITOR	10	16V
C107	QCC11EJ-272	CER.CAPACITOR	2700P	25V
C108	QETA1EM-475	E.CAPACITOR	4.7	25V
C109	QCC11EJ-272	CER.CAPACITOR	2700P	25V
C110	QETA1EM-475	E.CAPACITOR	4.7	25V
C111	QETCOJM-107	E.CAPACITOR	100	6.3V
C112	QETCOJM-107	E.CAPACITOR	100	6.3V
C113	QETA1CM-476	E.CAPACITOR	47	16V
C114	QCC11EJ-472	CER.CAPACITOR	4700P	25V
C115	QCC11EJ-472	CER.CAPACITOR	4700P	25V
CN101	PEMC0723-010	CONNECTOR	10PIN	
CN102	PEMC0723-010	CONNECTOR	10PIN	
CN103	PU59555-5	CONNECTOR	5PIN	
CN104	PEMC1102-006	CONNECTOR	6PIN	

6.10 REAR BOARD ASSEMBLY LIST 5|5
SLK2024-00A 5|5 □□□□□

Symbol No.	Part No.	Part Name	Description	
IC1	ICL232CPE	I.C.(M)	INTERSIL	
IC2	TC4053BP	I.C.(M)	TOSHIBA	
Q1	2SK658	F.E.T.	MATSUSHITA	
Q2	DTA114ES	TRANSISTOR	ROHM	
Q3	DTC124ES	TRANSISTOR	ROHM	
D4	RD20ES-T1B2	ZENER DIODE	NEC	
D5	RD20ES-T1B2	ZENER DIODE	NEC	
D6	1SS133	DIODE	ROHM	
R1	QRD161J-103	C.RESISTOR	10K	1/6W
R2	QRD161J-103	C.RESISTOR	10K	1/6W
R3	QRD161J-103	C.RESISTOR	10K	1/6W
R4	QRD161J-121	C.RESISTOR	120	1/6W
R5	QRD161J-121	C.RESISTOR	120	1/6W
R6	QRD161J-121	C.RESISTOR	120	1/6W
R7	QRD161J-121	C.RESISTOR	120	1/6W
R8	QRD161J-121	C.RESISTOR	120	1/6W
R9	QRD161J-121	C.RESISTOR	120	1/6W
R10	QRD161J-121	C.RESISTOR	120	1/6W
R11	QRD161J-121	C.RESISTOR	120	1/6W
R12	QRD161J-121	C.RESISTOR	120	1/6W
R14	QRD161J-103	C.RESISTOR	10K	1/6W
R15	QRD161J-103	C.RESISTOR	10K	1/6W
R16	QRD161J-121	C.RESISTOR	120	1/6W
R17	QRD161J-121	C.RESISTOR	120	1/6W
R18	QRD161J-121	C.RESISTOR	120	1/6W
R19	QRD161J-121	C.RESISTOR	120	1/6W
C1	QFN41HJ-103	MY.CAPACITOR	0.010	50V
C3	QEK61CM-226	E.CAPACITOR	22	16V
C4	QEK61CM-226	E.CAPACITOR	22	16V
C5	QEK61CM-226	E.CAPACITOR	22	16V
C6	QEK61CM-226	E.CAPACITOR	22	16V
C7	QCC11EJ-103	CER.CAPACITOR	0.010	25V
C8	QCC11EJ-103	CER.CAPACITOR	0.010	25V
CN1	PGZ02036	CONNECTOR	REMOTE 12PIN	
CN2	PGZ01461	CONNECTOR	D-SUB 9PIN	
CN3	PU59555-11	CONNECTOR	11PIN	
CN4	PU59555-103	CONNECTOR	3PIN	
JA1	PGZ02229	MINI JACK	R.A. EDIT	
JA2	PGZ00409-03	PIN JACK	REMOTE IN	
K1	PGZ00354	FERRATE BEADS		
K2	PGZ00354	FERRATE BEADS		
K3	PGZ00354	FERRATE BEADS		
K4	PGZ02241-221	NOISE FILTER		
K5	PGZ02241-221	NOISE FILTER		
K6	PGZ02241-221	NOISE FILTER		
K7	PGZ02241-221	NOISE FILTER		
K8	PGZ02241-221	NOISE FILTER		
K9	PGZ02241-221	NOISE FILTER		
K10	PGZ02241-221	NOISE FILTER		

6.11 INTERFACE BOARD ASSEMBLY LIST

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Symbol No.	Part No.	Part Name	Description
K11	PGZ02241-221	NOISE FILTER	
K12	PGZ02241-221	NOISE FILTER	
BK1	PRD49004	BRACKET	
SC1	PGZ00925-02	SCREW	
SC2	SDST3006Z	SCREW	M3×6

Symbol No.	Part No.	Part Name	Description	
IC1	HD6473837F-1**	I.C.(M)	HITACHI	
IC2	BR93LC56A	I.C.(M)	ROHM	
IC3	BR93LC56A	I.C.(M)	ROHM	
IC4	M51957BL	I.C.(M)	MITUBISHI	
Q1	DTC124ES	TRANSISTOR	ROHM	
D1	1SS133	DIODE	ROHM	
D2	1SS133	DIODE	ROHM	
D3	1SS133	DIODE	ROHM	
R1	QRSA08J-103	M.G.RESISTOR	10K	1/10W
R2	QRSA08J-273	M.G.RESISTOR	27K	1/10W
R3	QRSA08J-183	M.G.RESISTOR	18K	1/10W
R4	QRSA08J-121	M.G.RESISTOR	120	1/10W
R5	QRSA08J-121	M.G.RESISTOR	120	1/10W
R6	QRSA08J-121	M.G.RESISTOR	120	1/10W
R7	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R8	QRSA08J-121	M.G.RESISTOR	120	1/10W
R9	QRSA08J-121	M.G.RESISTOR	120	1/10W
R10	QRSA08J-121	M.G.RESISTOR	120	1/10W
R11	QRSA08J-103	M.G.RESISTOR	10K	1/10W
R12	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R13	QRSA08J-121	M.G.RESISTOR	120	1/10W
R14	QRSA08J-121	M.G.RESISTOR	120	1/10W
R15	QRSA08J-121	M.G.RESISTOR	120	1/10W
R16	QRSA08J-121	M.G.RESISTOR	120	1/10W
R17	QRSA08J-105	M.G.RESISTOR	1.0M	1/10W
R18	QRSA08J-103	M.G.RESISTOR	10K	1/10W
R19	QRSA08J-222	M.G.RESISTOR	2.2K	1/10W
R20	QRSA08J-222	M.G.RESISTOR	2.2K	1/10W
R21	QRSA08J-121	M.G.RESISTOR	120	1/10W
R22	QRSA08J-121	M.G.RESISTOR	120	1/10W
R23	QRSA08J-121	M.G.RESISTOR	120	1/10W
R24	QRSA08J-121	M.G.RESISTOR	120	1/10W
R25	QRSA08J-121	M.G.RESISTOR	120	1/10W
R26	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R27	QRSA08J-121	M.G.RESISTOR	120	1/10W
R28	QRSA08J-121	M.G.RESISTOR	120	1/10W
R29	QRSA08J-104	M.G.RESISTOR	100K	1/10W
R30	QRSA08J-103	M.G.RESISTOR	10K	1/10W
R31	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
R32	QRSA08J-121	M.G.RESISTOR	120	1/10W
R33	QRSA08J-121	M.G.RESISTOR	120	1/10W
R34	QRSA08J-121	M.G.RESISTOR	120	1/10W
R35	QRSA08J-121	M.G.RESISTOR	120	1/10W
R36	QRSA08J-103	M.G.RESISTOR	10K	1/10W
R37	QRSA08J-103	M.G.RESISTOR	10K	1/10W
R38	QRSA08J-103	M.G.RESISTOR	10K	1/10W
R39	QRSA08J-472	M.G.RESISTOR	4.7K	1/10W
C1	QCTA1CH-150	CER.CAPACITOR	15P	50V
C2	QCTA1CH-150	CER.CAPACITOR	15P	50V
C3	QETA1HM-104	E.CAPACITOR	0.10	50V
C4	QCYA1HK-103	CER.CAPACITOR	0.010	50V
C5	QCFA1HZ-104	CER.CAPACITOR	0.10	50V
C6	QCFA1HZ-104	CER.CAPACITOR	0.10	50V
C7	QCFA1HZ-104	CER.CAPACITOR	0.10	50V

6.12 Y/C SEPA BOARD ASSEMBLY LIST [8][9]

PB20669A

[8][9] [] [] [] [] [] [] [] []

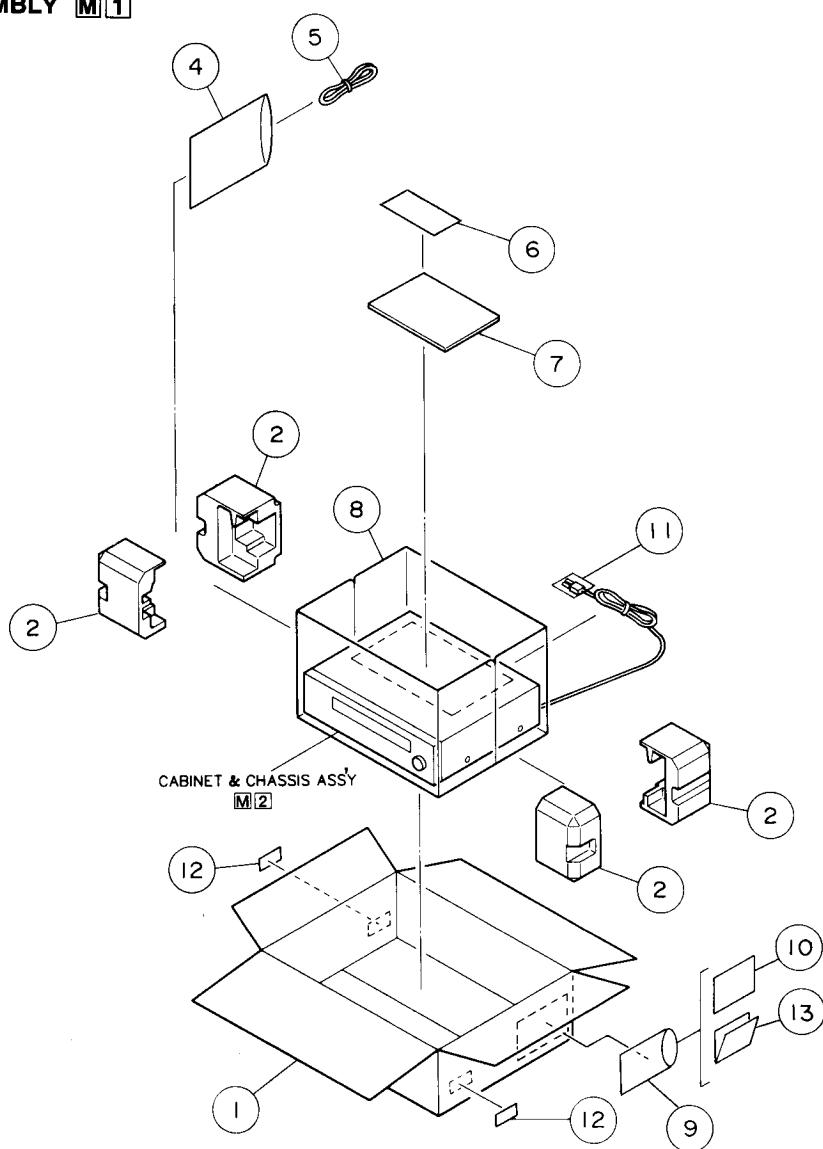
Symbol No.	Part No.	Part Name	Description	
C8	QCFA1HZ-104	CER.CAPACITOR	0.10	50V
C9	QETA0JM-477	E.CAPACITOR	470	6.3V
C10	QETA0JM-477	E.CAPACITOR	470	6.3V
C11	QCFA1HZ-104	CER.CAPACITOR	0.10	50V
C13	QCFA1HZ-104	CER.CAPACITOR	0.10	50V
C14	QCFA1HZ-104	CER.CAPACITOR	0.10	50V
C15	QCYA1HK-102	CER.CAPACITOR	1000P	50V
C16	QCYA1HK-102	CER.CAPACITOR	1000P	50V
L1	PELN0687	COIL		
X1	CST9.83M	CERA LOCK		
X2	PEVB0422	CRYSTAL		
CN1	PU59555-11	CONNECTOR	11PIN	
CN2	PU59555-7	CONNECTOR	7PIN	
CN3	PEMC1102-005	CONNECTOR	5PIN	
CN4	PU59555-12	CONNECTOR	12PIN	

Symbol No.	Part No.	Part Name	Description	
IC1	NJM2240M	I.C.(M)	JRC	
IC2	JCP0043	I.C.(M)	JVC	
Q1	2SC4081(QRS)	TRANSISTOR	ROHM	
Q2	2SA1576(QRS)	TRANSISTOR	ROHM	
Q3	2SC4081(QRS)	TRANSISTOR	ROHM	
Q4	2SA1576(QRS)	TRANSISTOR	ROHM	
Q5	2SC4081(QRS)	TRANSISTOR	ROHM	
Q6	2SA1576(QRS)	TRANSISTOR	ROHM	
Q7	2SC4081(QRS)	TRANSISTOR	ROHM	
Q8	2SC4081(QRS)	TRANSISTOR	ROHM	
Q9	2SC4081(QRS)	TRANSISTOR	ROHM	
Q10	2SC3932(ST)	TRANSISTOR	MATSUSHITA	
Q11	2SC4081(QRS)	TRANSISTOR	ROHM	
Q12	2SC4081(QRS)	TRANSISTOR	ROHM	
Q13	2SC4081(QRS)	TRANSISTOR	ROHM	
Q14	2SC3932(ST)	TRANSISTOR	MATSUSHITA	
Q15	2SA1576(QRS)	TRANSISTOR	ROHM	
D1	DAP202U	DIODE	ROHM	
R1	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W
R2	NRSA63J-471	M.G.RESISTOR	470	1/16W
R3	NRSA63J-361	M.G.RESISTOR	360	1/16W
R4	NRSA63G-432	M.G.RESISTOR	4.3k	1/16W
R5	NRSA63J-271	M.G.RESISTOR	270	1/16W
R6	NRSA63J-271	M.G.RESISTOR	270	1/16W
R7	NRSA63J-271	M.G.RESISTOR	270	1/16W
R8	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W
R9	NRSA63J-473	M.G.RESISTOR	47k	1/16W
R10	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W
R11	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W
R12	NRSA63J-222	M.G.RESISTOR	2.2k	1/16W
R13	NRSA63J-182	M.G.RESISTOR	1.8k	1/16W
R14	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W
R15	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W
R16	NRSA63J-222	M.G.RESISTOR	2.2k	1/16W
R17	NRSA63J-681	M.G.RESISTOR	680	1/16W
R18	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W
R19	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W
R21	NRSA63J-222	M.G.RESISTOR	2.2k	1/16W
R22	NRSA63J-681	M.G.RESISTOR	680	1/16W
R23	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W
R24	NRSA63J-222	M.G.RESISTOR	2.2k	1/16W
R25	NRSA63J-132	M.G.RESISTOR	1.3k	1/16W
R26	NRSA63J-472	M.G.RESISTOR	4.7k	1/16W
R27	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W
R28	NRSA63J-361	M.G.RESISTOR	360	1/16W
R29	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W
R30	NRSA63J-223	M.G.RESISTOR	22k	1/16W
R31	NRSA63J-223	M.G.RESISTOR	22k	1/16W
R32	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W
R33	NRSA63J-222	M.G.RESISTOR	2.2k	1/16W
R34	NRSA63J-222	M.G.RESISTOR	2.2k	1/16W
R35	NRSA63J-472	M.G.RESISTOR	4.7k	1/16W
R36	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W
R37	NRSA63J-361	M.G.RESISTOR	360	1/16W
R38	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W

Symbol No.	Part No.	Part Name	Description		Symbol No.	Part No.	Part Name	Description	
R39	NRSA63J-101	M.G.RESISTOR	100	1/16W	C42	NCB31HK-103	CER.CAPACITOR	0.010	50V
R40	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W	C43	NCF31EZ-104	CER.CAPACITOR	0.10	25V
R41	NRSA63J-222	M.G.RESISTOR	2.2k	1/16W	C44	NCF31EZ-104	CER.CAPACITOR	0.10	25V
R42	NRSA63J-331	M.G.RESISTOR	330	1/16W	C45	NCF31EZ-104	CER.CAPACITOR	0.10	25V
R43	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W	C46	NCF31EZ-104	CER.CAPACITOR	0.10	25V
R44	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W	C47	NCB31HK-103	CER.CAPACITOR	0.010	50V
R45	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W	C48	NCF31EZ-104	CER.CAPACITOR	0.10	25V
R46	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W	C56	NCF31EZ-104	CER.CAPACITOR	0.10	25V
R47	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W	C64	NCF31EZ-104	CER.CAPACITOR	0.10	25V
R48	NRSA63J-102	M.G.RESISTOR	1.0k	1/16W	C69	NCS31HJ-470	CER.CAPACITOR	47p	50V
R54	NRSA63J-103	M.G.RESISTOR	10k	1/16W	C70	NCS31HJ-470	CER.CAPACITOR	47p	50V
R63	NRSA63J-222	M.G.RESISTOR	2.2k	1/16W	C71	NCS31HJ-470	CER.CAPACITOR	47p	50V
R67	NRSA63J-153	M.G.RESISTOR	15k	1/16W	C72	NCS31HJ-470	CER.CAPACITOR	47p	50V
R68	NVP1311-223	V RESISTOR	22k		C73	NCS31HJ-470	CER.CAPACITOR	47p	50V
R69	NRSA63J-562	M.G.RESISTOR	5.6k	1/16W	C74	NCS31HJ-470	CER.CAPACITOR	47p	50V
R70	NRSA63J-562	M.G.RESISTOR	5.6k	1/16W	C75	NCS31HJ-470	CER.CAPACITOR	47p	50V
R71	NRSA63J-562	M.G.RESISTOR	5.6k	1/16W	C76	NCS31HJ-470	CER.CAPACITOR	47p	50V
C1	NCS31HJ-120	CER.CAPACITOR	12p	50V	C77	NCS31HJ-470	CER.CAPACITOR	47p	50V
C2	NCB31HK-103	CER.CAPACITOR	0.010	50V	C78	NCS31HJ-470	CER.CAPACITOR	47p	50V
C3	QEK60JM-107	E.CAPACITOR	100	6.3V	C79	NCS31HJ-470	CER.CAPACITOR	47p	50V
C4	NCB31HK-103	CER.CAPACITOR	0.010	50V	C82	NCB31HK-103	CER.CAPACITOR	0.010	50V
C5	QEK61EM-475	E.CAPACITOR	4.7	25V	C83	QEK60JM-476	E.CAPACITOR	47	6.3V
C6	NCB31HK-102	CER.CAPACITOR	1000p	50V	C84	NCF31EZ-104	CER.CAPACITOR	0.10	25V
C7	NCB31HK-103	CER.CAPACITOR	0.010	50V	C89	QEK61CM-106	E.CAPACITOR	10	16V
C8	NCT08CH-6R0	CER.CAPACITOR	6.0p	50V	C91	QEK61HM-474	E.CAPACITOR	0.47	50V
C9	NCB31HK-103	CER.CAPACITOR	0.010	50V	C92	QEK61HM-474	E.CAPACITOR	0.47	50V
C10	NCB31HK-103	CER.CAPACITOR	0.010	50V	L1	PU48530-100	COIL	10 μ	
C11	NCF31EZ-104	CER.CAPACITOR	0.10	25V	L2	PU48530-101	COIL	100 μ	
C12	QEK60JM-337	E.CAPACITOR	330	6.3V	L3	PU59153-101	COIL	100 μ	
C13	NCF31EZ-104	CER.CAPACITOR	0.10	25V	L4	PU59153-101	COIL	100 μ	
C14	QEK60JM-107	E.CAPACITOR	100	6.3V	L5	PU48530-101	COIL	100 μ	
C15	NCF31EZ-104	CER.CAPACITOR	0.10	25V	L6	PU48530-101	COIL	100 μ	
C16	QEK60JM-107	E.CAPACITOR	100	6.3V	L7	PU48530-101	COIL	100 μ	
C17	NCF31EZ-104	CER.CAPACITOR	0.10	25V	L8	PU59153-101	COIL	100 μ	
C18	QEK60JM-107	E.CAPACITOR	100	6.3V	L9	PU48530-101	COIL	100 μ	
C19	NCF31EZ-104	CER.CAPACITOR	0.10	25V	L10	PU48530-101	COIL	100 μ	
C20	QEK60JM-107	E.CAPACITOR	100	6.3V	LPF1	PELN1062	LOW PASS FILTER		
C21	NCF31EZ-104	CER.CAPACITOR	0.10	25V	LPF2	PELN1062	LOW PASS FILTER		
C22	QEK60JM-337	E.CAPACITOR	330	6.3V	LPF3	PELN1062	LOW PASS FILTER		
C24	QEK60JM-476	E.CAPACITOR	47	6.3V	LPF4	PELN1061	LOW PASS FILTER		
C25	NCB31HK-103	CER.CAPACITOR	0.010	50V	LPF5	PELN1061	LOW PASS FILTER		
C26	QEK61HM-105	E.CAPACITOR	1.0	50V	LC1	PU59736-102	N FILTER		
C27	NCB31HK-103	CER.CAPACITOR	0.010	50V	LC2	PU59736-331	N FILTER		
C28	NCF31EZ-104	CER.CAPACITOR	0.10	25V	SLD1	PQ34851-1-1	SHIELD FRAME		
C29	NCF31EZ-104	CER.CAPACITOR	0.10	25V	SLD2	PQ34852-1-2	SHIELD COVER		
C30	NCF31EZ-104	CER.CAPACITOR	0.10	25V	CN1	PEMC0712-109	CONNECTOR	9PIN	
C31	NCF31EZ-104	CER.CAPACITOR	0.10	25V	CN2	PEMC0712-110	CONNECTOR	10PIN	
C32	QEK60JM-476	E.CAPACITOR	47	6.3V					
C33	NCB31HK-103	CER.CAPACITOR	0.010	50V					
C34	NCB31HK-103	CER.CAPACITOR	0.010	50V					
C35	QEK60JM-476	E.CAPACITOR	47	6.3V					
C36	NCB31HK-103	CER.CAPACITOR	0.010	50V					
C37	QEK61EM-335	E.CAPACITOR	3.3	25V					
C38	QEK60JM-476	E.CAPACITOR	47	6.3V					
C39	NCB31HK-103	CER.CAPACITOR	0.010	50V					
C40	NCB31HK-103	CER.CAPACITOR	0.010	50V					
C41	NCB31HK-103	CER.CAPACITOR	0.010	50V					

SECTION 7 REPACKING

7.1 PACKING ASSEMBLY **M1**



Note: Accessories above are subject to change without notice.

7.2 PACKING ASSEMBLY LIST **M1**

M1 M M M M M M M M

Symbol No.	Part No.	Part Name	Description
1	—	CARTON BOX	
2	—	CUSHION	
4	QPGA020-02005	PLASTIC BAG	
5	PGZ02073	Y/C CABLE	
6	—	SAFETY GUIDE	
7	SL96062	INSTRUCTION	
8	—	PLASTIC BAG	
9	—	PLASTIC BAG	
10	—	WARRANTY CARD	
11	—	CUSHION	
12	—	SERIAL NO. LABEL	
13	—	SERVICE INFORMATION	



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